MASSACHUSETTS EYE & EAR INFIRMARY
Caeci · vident. DEO. Surdi audiunt
JUV.
Feby 23. 1827.

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Massachusetts Eye and Ear Infirmary

Studies on Its History

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Massachusetts Eye and Ear Infirmary

Studies on Its History

CHARLES SNYDER

1984

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Dedicated to the memory of . . .

Moses H. Lurie, M.D.

THE SEAL OF THE INFIRMARY

At their first meeting as an incorporated body on March 6, 1827, the Managers of the Massachusetts Charitable Eye and Ear Infirmary appointed a committee to design a common seal for the Infirmary. It was the custom of the times for incorporated bodies such as the Infirmary to have seals and to use them on all legal documents and important business papers. The members of the committee were Edward Reynolds and John Jeffries, Co-Founders and Surgeons of the Infirmary, and Mr. Lucius Manlius Sargent, a Manager, through ". . . whose personal exertions more than two thousands dollars were collected in one week, as a permanent fund for the Infirmary; and nearly three hundred in annual subscriptions."

At a subsequent meeting, the committee submitted their design for the common seal. It was about 1 3/4 inches in diameter. Around the circumference appeared the legend: "MASS. CHARITABLE EYE & EAR INFIRMARY, Feb. 23, 1827." Next to this circle of words was another circle of words in Latin, the Infirmary's motto: "DEO. Surdi audiunt. JUV. Caeci vident." Translated: "The deaf hear — the blind see — with the help of God." This motto was inspired by the fifth verse of the eleventh chapter of the Gospel according to St. Matthew. Here Christ replied to an inquiry from John the Baptist as follows: "The blind receive their sight, and the lame walk, the lepers are cleansed, and the deaf hear, the dead are raised up, and the poor have the gospel preached to them." The center of the seal was filled with an image of a rayed sun rising over a bank of clouds. This denoted light and sight.

The engraver selected for the seal was one J. T. N. Throop and his fee was $10.00.

In 1924 the word "Charitable" was dropped from the Infirmary name; the design was changed. Around the circumference appeared the legend: "MASSACHUSETTS EYE & EAR INFIRMARY, Feb. 23, 1827." The Latin words in the next circle appeared in capital letters: "DEO. SURDI. AUDIUNT. JUSV. CAECI. VIDENT." No change was made in the design of the image in the center.

Sometime later the design was changed again. The words on the outer circle remained as they were. Those of the inner circle ceased to be capital letters and appeared as follows: "DEO. Surdi audiunt. JUV. Caeci Vident." The design of the center was changed from a rayed sun rising over a bank of clouds to a rayed sun rising over the waves of the sea. Thus the design came to denote the two clinical purposes of the Infirmary — the rising sun

that of sight and light and the waves that of hearing and sound. This is the version of the seal that is in use today.

When the seal is used as a logo on letterheads, on House Officer whites, on chairs, and the like, some small liberties are often taken with the design.

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Preface

In October 1984 the Massachusetts Eye and Ear Infirmary will be 160 years old. It is the second oldest hospital in Boston and the second oldest eye and ear infirmary in the United States. The Infirmary began with a staff of two in a single room in Scollay's Building on Scollay Square — rent: $25.00 a quarter. Today, with a staff numbering in the hundreds, it occupies a towering building on the corner of Charles and Fruit Streets.

During the years between 1824 and 1984, revolution after revolution occurred in the health care field. This is well-exemplified in the history of the Infirmary. Only a part of that history, however, is told here. Much of what appears on the pages that follow is concerned with the Infirmary during the nineteenth century. This period can, in one sense, be regarded as the most interesting period in the life of the Infirmary. It was a time of survival and growth, a time of seeking an identity and finding identity.

As Infirmary Archivist, it was my privilege to have the records of that period in my custody. Reading through them, I came to marvel at the deep religious nature and vision of the cofounders, Edward Reynolds, M.D., and John Jeffries, M.D. The early Managers, whose "wisdom and perserving energy" guided the institution through perilous financial times and made certain of its future, drew my admiration. And I applauded the Surgeons who, with a pitifully small armamentarium, were able to bring relief to thousands of patients who had faith in the Infirmary.

It has been an honor to tell part of their story.

Charles Snyder
Concord, Massachusetts
1984

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The Massachusetts Eye and Ear Infirmary

A Short History of the Early Years

INTRODUCTION

Everything has a beginning and everything has a birth date, that is, everything but the Massachusetts Eye and Ear Infirmary. It has two beginnings and two birth dates. The first beginning and birth date was October 1, 1824, when it was founded by Edward Reynolds, M.D., and John Jeffries, M.D. The second beginning and birth date was February 23, 1827, when the governor of the Commonwealth signed its Act of Incorporation. Fortunately, documents of the two beginnings have been preserved in the Infirmary Archives. These are the basis for this study. Their contents, in some instances, have never been made public. Well hidden has been the language of Edward Reynolds who once referred to the Massachusetts Eye and Ear Infirmary as ". . . the child of an early love, about which clusters the memory of many pleasing associations" and ". . . the kindness of its friends, the fostering care that watched its feeble infancy, guided and protected its promising youth."

These words of Reynolds served as a guide in preparing this chapter. Thus attention is given only to the years 1824–38, the years of the Infirmary's birth, infancy, and youth. The first friends referred to by Reynolds are named and the nature of their kindness and fostering care is detailed. Also detailed are the money facts and figures and the clinical facts and figures for the Infirmary's first 14 years.

One hundred sixty years is a long time ago. To better understand those times — to better understand the forces that brought the Infirmary into being — information on the social, economic, and health care scene of Boston in the 1820s is provided. With this, something is told of the world-wide eye and ear infirmary movement of which the Boston Eye Infirmary was an important element.

I

Boston in the 1820s has been described by one writer as being ". . . the most homogenous community in America . . . a town of small traders, of petty artisans and handicraftsmen, and of great merchant princes who built fortunes out of their 'enterprise, in-

telligence, and frugality,' and used the city as a base for their far-flung activities . . . a powerful financial center and a great money market." Another description reads that "Boston was a comfortable well-to-do city in which people managed to live comfortable and healthy lives." And a third account: "I know of no large city where there is so much mutual helpfulness, so little neglect and ignorance of the concern of other classes."

In addition to these pleasant facts, it can be recorded that Boston in the 1820s was geographically a small place, measuring a little more than a square mile. The population was about 55,000, with an additional 25,000 in the towns that now make up greater Boston. The Negro population is estimated at 1,800. Half of these lived on the north slope of Beacon Hill, an area denoted as Nigger Hill or Mount Horum. By tradition the Negroes were the town barbers, chimney sweeps, small traders, and hostlers. Because Boston was yet to become a great immigration port, foreign-born minority groups were small. In fact, most foreigners were regarded as "strays," those passing through. The city was not a place where new opportunities could be found. The ambitious and energetic without capital and family connections went elsewhere, their places in the city being taken by migrants from the depressed rural areas of New England. It was these people — the rural migrants, the unsuccessfuls, the alien "strays," and the Negroes — that gave Boston most of its indigent population and its sick-poor. If the indigent and the sick-poor were respectable they might know succor, for among the city's fortunate were those who held and practiced a credo: "We are all stewards of God's bounty and we are bound and directed to distribute it."

As for the city's health-care problems, these were entrusted to the hands of 62 regular practitioners (one doctor for every 900 population). These men had been approved and licensed by the Massachusetts Medical Society. To qualify for the Society's examination for its license to practice medicine, the candidate had to "have such an aquaintance with Greek and Latin languages as is necessary for a medical or surgical education, and with the principles of geometry and experimental philosophy." In addition: "He shall have attended two full courses of lectures, and studied three full years under the direction, and attended the practice of some one or more of the fellows or honorary members of the Society; during which time he shall have studied the most approved authors of the very branches of medicine." In Massachusetts there were two institutions where a candidate could attend the required two

full courses of lectures: Massachusetts Medical College of Harvard University or the Berkshire Medical Institute located in Pittsfield and under the jurisdiction of Williams College. At both schools the lecture period was for three to four months. The cost at Harvard was $125 a term; at Berkshire $80 a term. Room and board for a student in Boston was $3 a week.

Once having received his Society license, the young M.D., be he from Boston or elsewhere, did not immediately plunge into a world of affluence. He had to truly compete for a practice against a horde of irregulars. In the early nineteenth century, more than half the New England doctors were neither Society members nor medical school graduates. What training they had usually came through preceptorships. They could not or would not qualify for a license. As for money, the fee for a house call was 35 cents to 75 cents; and most New England practitioners seldom received more than $500 a year in money and kind. It has been said that nearly all physicians, regardless of their status, as part of their professional creed remitted all or part of their charges for the sick-poor.

From their first days, the towns of New England knew and knew well the burden of the indigent and the sick-poor. Their earliest answer, one borrowed from England, was the town almshouse, which has been described as a "charity that was cold — anything colder could not be conceived." In the almshouses were gathered as "partakers of the public bounty," "the idle and vicious poor" along with the "respectable poor." It was not uncommon for a small town to use one-third of its annual budget to care for its idle and dissolute, its aged and orphaned, and its sick-poor and insane. The medical care was often let out by the town selectmen to the physician who would undertake the charge at the lowest figure.

Boston's oldest health care facility, if it can be dignified by that term, was its Almshouse, first erected in 1662 for the relief of the poor, the aged, and those incapacitated for labor. In 1801 a new structure was erected, one "that looked ancient from the day it opened its doors." It had three divisions: the almshouse proper, the workshop, and the bridewell. The first division was for the poor who from sickness, age, or infirmity were unable to work; the second was for the poor who were able to work, more or less; and the third was for persons committed on justices' warrants for petty offenses. The interior arrangements did not permit the separation of age and misfortune from vice and vagrancy. There were 32 rooms for the accommodation of more than 380 inmates. Some rooms contained 14 persons, none less than five, of all ages and

colors and in every stage of poverty and disease produced by misfortune and vice. At times there were as many as 50 sick in the eight rooms of the "hospital portion."

Josiah Quincy, mayor of Boston for part of the 1820s and the source of the above information, further describes the Almshouse as a place of "gross and disgusting character," an "incongruous and unfit mixture of departments of hospital, almshouse, and house of correction." His solution was to divide the virtuous poor from the vicious poor, to have a separate almshouse that would be "a receptacle for the aged, infirm, and sick-poor, and little children — and a house of industry for others."

By 1824 Quincy was able to effect some of the reforms he envisaged. But up until that time — and up until 1818 and 1821 when the Massachusetts General Hospital opened its asylum for the insane and its medical-surgical hospital — the sick-poor and the insane of Boston had no place to go but the "hospital portion" of the Almshouse. It was the only institution the city possessed. In this, Boston lagged far behind Philadelphia, whose Pennsylvania Hospital opened in 1756, and New York City, whose New York Hospital admitted its first patient in 1791.

Another Boston health-care facility was on Rainsford Island, six miles out in Boston Harbor, where the city and state maintained a quarantine and isolation hospital. Here incoming ships stopped for health clearance. Cases of contagious diseases were brought there from Boston and nearby towns for isolation and treatment. Many of the patients came willingly because the place had a good reputation. Barracks-like quarters were provided for the patients, while the attending physician had his own residence. Two comments that have come down to us cast the Island Hospital in a favorable light: ". . . an asylum as once necessary and desirable, and so extensive, convenient and comfortable" and ". . . although the hospital equipment and facilities on the island were rather scanty, the accommodations were 'roomy, neat, and cleanly.' "

Before the opening of the Massachusetts General Hospital in 1821, the only health care facility in the Boston area that approached the idea of a general hospital was the Marine Hospital in Charlestown. This was not a general public hospital, since the patient population was restricted to seamen from the U.S. Navy and from the mercantile fleet. Built by federal funds, maintained by federal funds and by deductions from the wages of working seamen, it was ready to receive its first patients shortly after 1803. It housed

an average of 30 patients. In the ten-year period 1809–19, 4,307 patients were treated; 245 of these died. Some of the cadavers were quietly made available to Harvard's Medical Institution and to others for anatomical demonstrations.

For a time, Benjamin Waterhouse, M.D., of smallpox vaccination fame was the attending physician. The fact that personnel was selected on a political partronage basis disturbed some Bostonians. The high cost of maintaining a patient and a suspicion of chicanery and inefficiency disturbed the U.S. Secretary of the Treasury. To many it was the local example of all the dangers thought to be inherent in government-sponsored and -operated hospitals.

The first private voluntary charity in Boston to address itself to the problem of the sick-poor was the Boston Dispensary, founded in 1796. It had its origins in the mixed motives of economy and humanity, for it was based on the belief that a very large number of the sick-poor could, by gratuitous medical aid, be cared for in their own homes at a comparatively trifling expense. Such public dispensaries had proved their worth in London, Philadelphia, and New York. Allowing the destitute sick to be treated in their own homes eliminated some of the expense of maintaining almshouses and hospitals in these cities. In addition, the sick could remain with their own families, not be forced into the company of unfeeling strangers. And a degree of secrecy could be maintained for those who might be humiliated if it were widely known that they received the benefits of a charity.

In the ten-year period 1824–34, the Dispensary cared for 23,781 patients. The cost was $18,701.57 — 78 1/2 cents for each patient. These figures include not only the usual treatment costs, but also monies expended in some cases for wines, food, fuel, clothing, and, from time to time, for trusses and crutches.

The knowledge of the deplorable conditions and of the wretched state of the sick-poor and insane in the Boston Almshouse troubled the consciences and sensibilities of many Bostonians. Action came in 1811, when a group composed of clergymen, doctors, and merchants, and other men of means joined together and sought a charter from the Commonwealth for a hospital to be known as the Massachusetts General Hospital. The War of 1812 delayed the work. With peace, a community fund drive netted more than $107,000. Charles Bulfinch was commissioned to design a building that would incorporate all the latest ideas of hospital construction. In 1818 the

division for the insane opened in Charlestown. Three years later — September 1821 — the medical-surgical division in Boston admitted its first patient.

The Massachusetts General Hospital was not intended to serve as Boston's free public hospital for all the city's sick-poor. It was a private, non-profit voluntary organization, pledged — within its physical and fiscal limits — to welcome all in need of hospital care with no restrictions as to race, creed, color, or ability to pay. The ability of a patient to pay and the amount he should pay was determined in each case by the Trustees. The usual fee was $3 a week — a sum that barely covered the cost of room and board of the average patient. During 1822, the first full year of service, 22 percent of the house patients were treated free of charge. By 1830 this figure rose to above 40 percent. Thirty-five to 40 medical and surgical patients were cared for each week.

In addition to their regular hospital duties, the hospital's physician, James Jackson, M.D., and surgeon, John Collins Warren, M.D., gave advice without charge to out-patients, to whom all medicines were also distributed gratuitously. This was done at noon on each Tuesday, Thursday, and Friday. On Fridays persons affected with disorders of the eye received medical advice.

Not only was medical advice given to ophthalmic out-patients at the Massachusetts General Hospital, eye operations were performed in the house. From September 1821 to June 1823, the surgeon, John Collins Warren, performed 46 operations. Eleven of these were on the eye: eight cataract operations, one artificial pupil, one eversion of the eyelids, and one case of lacrimal fistula. In reporting on the ophthalmic work done, Warren wrote: ". . . we have been so happy as to avoid the loss of a single eye at this institution."

Of the Boston surgeons of his generation, it would seem that Warren had the most experience in eye cases. From 1822 to 1824 he operated on seven private cataract cases. All were cured or much relieved. Of the three principal operations for curing cataracts, he found that the most perfect was that of extraction, the most scientific that of absorption, and the most facile that of depression. The breadth of Warren's experience in ophthalmic medicine and surgery and the views he held can be learned by studying the several journal articles he wrote on the subject.

This then was Boston in 1824 — a prosperous, homogenous community with a population of 55,000 and a neighboring population of 25,000. Sixty-two regular physicians and a horde of irregulars practiced medicine in the city. The public health-care

facilities were the Almshouse, the Rainsford Island Hospital, and the Marine Hospital. The private charity institutions, both modeled on the English voluntary hospital system, were the Boston Dispensary and the Massachusetts General Hospital with its medical-surgical unit and its unit for the care of the insane.

But before 1824 ended, Boston had another health care facility — the Boston Eye Infirmary — the personal charity enterprise of two of the city's young doctors, Edward Reynolds and John Jeffries.

II

The younger of the two men, John Jeffries, was born on March 23, 1796, in his father's mansion house on Tremont Street, Boston. The father, also named John, had begun the practice of medicine in Boston in 1765. A Loyalist during the Revolution, he had served in the medical department of his majesty's forces as surgeon and medical purveyor. When the war was over and passions had cooled, Boston forgave him, allowed him to return to his native city, claim a large inheritance, and become a distinguished physician and surgeon.

At the age of five, the junior John Jeffries began his medical training by holding a lancet for his father. When he was 15, he entered Harvard College, taking his bachelor's degree four years later in 1815. In the pattern of the time, he did his years of formal study of medicine with his father as his preceptor. He also attended the required two terms of lectures at the Medical School, receiving his M.D. degree in 1819. He had received an A.M. degree from Harvard a year earlier in 1818. In 1825 he received an honorary M.D. degree from Brown University.

The plan had been for John Jeffries to go into practice as his father's partner. This was not to be, for the father died in 1819 within weeks of the son's formal entry upon a medical career. This left the 23-year-old son with all the responsibilities of the practice, as well as those of being head of the Jeffries family.

A year later he added to his responsibilities by marrying. The assuming of all these responsibilities may explain in part why John Jeffries never followed the custom of many of his generation of going to Europe to further his medical education. He appreciated the value of such study and envied those who gained it. The record shows that all of John Jeffries's medical education and all of his medical experiences were Boston-based.

The Jeffries family was an old one in Boston, with an assured

Edward Reynolds, M.D. (1793–1881).
Co-founder of the Infirmary.

financial and social position. The father had earned a reputation as a physician and scientist. The son showed promise of doing well. These facts, important in Boston 150 years ago, allowed John Jeffries to move with ease into a circle that contained the Lowells, the Shaws, the Jacksons, the Wymans, the Tuckermans, the Warrens, and the Reynolds. A member of this last family, Edward Reynolds, became John Jeffries's life-long friend and partner in an ophthalmic charity enterprise.

Edward Reynolds, born February 25, 1793, was three years older than John Jeffries. The son of a prosperous Bostonian, he received an excellent elementary education in the private schools of Boston. At the age of 14 he entered Harvard College, graduating with a bachelor's degree in 1811. A few years later he received an A.M. degree from the same institution. His right to use the title "Doctor" came in 1825, when both Brown University and Bowdoin College honored him with M.D. degrees. Reynolds never earned such a degree. This was not unusual for the times. A study of his medical education shows that he was as well educated, if not better educated, than many of his colleagues.

Upon graduating from Harvard College, Reynolds began a four-year preceptorship under John Collins Warren. There is no record that he attended the courses of formal lectures given by Warren and others at Harvard's Medical School. However, there are excellent records — his memoirs and letters — that tell in a delightful way how he followed his preceptor's example and went to London and Paris for his didactic training.

He was in London at Guy's Hospital and St. Thomas's Hospital at the beginning of 1816. Here his mentors were, among others, Henry Cline, Benjamin Travers, William Lucas, and Astley Paston Cooper. Important to our story are two letters he wrote to Warren. On June 17, 1816, he wrote: "I intend taking a ticket soon at the Eye Infirmary. This with the hospitals and midwifery, will, or ought to, make me a very busy man during the remainder of the year." On July 4, 1816, he wrote: "He [Cooper] prefers the extraction of the lens in cataract to other modes of operating; he thinks it is on every account decidedly preferable and strongly advises all who intend pursuing this branch of the profession to make themselves perfectly familiar with it. It is practiced almost exclusively by the surgeons of the London Eye Infirmary."

The cost to Reynolds for a three-month ticket at the Eye Infirmary was five guineas; if he took a six-month ticket, the fee was eight guineas. His instructors were Benjamin Travers, William Lawrence, and John Richard Farre. Among his classmates were two young men from New York, Edward Delafield and John Kearney Rodgers. In later years Reynolds described Rodgers as "the best and noblest man I ever knew . . . the best friend of my early manhood." During their stay in London, all three of the young men came to realize how scant had been the recognition given to ophthalmology in their own country, and how woefully inadequate ophthalmic care was in America.

During the months the three young Americans were at Guy's and St. Thomas's, among their fellow students was one whose name is known wherever the English language is read. That name — John Keats. Keats had entered Guy's as a student in October 1815, three months before Reynolds and Rodgers. By 1816 he was a dresser to William Lucas, Surgeon of Guy's. Did the three Americans and Keats ever meet? Was notice ever paid to a frail young man who was even then beginning to affect the style of poetic dress à la Byron? Perhaps. Keats took many of the same courses as did the Americans. From those courses Reynolds compiled 14 volumes of hand-written notes; Delafield compiled five volumes. Some of

Keats's notes for the same courses have been preserved. It might be an interesting project for some scholar to compare these three sets of notes. Sometime early in 1817 John Keats left medicine, never to return. His few remaining years were spent writing his poetry.

On January 3, 1817, Reynolds wrote to his old preceptor, Warren, a letter that gives some interesting details on his medical education. "As I was unable to receive a degree before I left Boston, I believe I shall get one from College [Guy's and St. Thomas's] in May. It appears to me preferable to returning without, — not because I consider it better, but because it would be rather unpleasant to submit to the usual examination with those who are so much younger than myself after my return." He carried through with this plan, for we learn that on May 14, 1817, he completed 12 months at Guy's and St. Thomas's as a pupil of the practice of surgery, and also that he had "diligently attended three courses of anatomy and operations . . . and likewise with great care and diligence attended to dissections and the making of preparations as dissecting pupil in three courses." As proof of all this, the surgeons of Guy's and St. Thomas's gave him a handsomely engraved certificate complete with their signatures. With this in his possession, Reynolds set off for Paris to spend eight months in that city's teaching clinics. March 1818 found him back in London attending the lectures of John Abernethy at St. Bartholomew's. In midsummer 1818, Reynolds left England for Boston and home. What awaited him there is best told in the words of his grandson, also named Edward Reynolds and also a doctor.

When Dr. Reynolds returned from Europe, it was his misfortune to find his 60-year-old father blind with cataracts in both eyes.

> *I well remember my grandfather telling me of his operation on his father's eyes. He told me that his father, finding his eyesight failing, made great efforts to accustom himself to its gradual disappearance and to the performance of his ordinary duties without the aid of sight, and that upon one occasion, after finishing the process of shaving himself before a large mirror placed between two windows in his room, he put away his razor and, turning to his wife, said to her, "My dear, I am at last totally blind, I can see nothing." My grandfather said that his father had written him nothing of this infirmity, which came on while he was a student in London; that it was, in consequence, a great shock to him to find his father blind. He said that on looking at his eyes, and satisfying himself that the blindness*

was due to cataracts, he thought the situation over; that his father was too old to take the sailing voyage to London, and, so far as he knew, no operation for cataracts had been performed in America, and certainly none in this locality; that he was, therefore, probably better qualified than anyone available for the performance of the operation, and that he decided to attempt it. He said, "I went into my closet and offered a prayer to the deity for success, took a glass of sherry and went ahead to do my best."

The operation proved to be a complete success, and becoming widely known, it formed the foundation of an extensive practice in the new speciality of ophthalmology.

In 1850 Reynolds himself commented publicly on the matter:

Perhaps, on this occasion, I may be pardoned in saying, that the Massachusetts Charitable Eye Infirmary partly originated in the fact that one of its founders had the happiness of restoring a beloved father to sight by the operation for cataract. The tender relation in this case of surgeon and patient, becoming extensively known among the small population then composing our community, brought to his observation, a large number of Ophthalmic patients; and soon revealed the fact, that the poor and laboring classes are peculiarly liable to these diseases. . . . The great majority of all these cases belong to the humbler ranks of society; and have their prolific parentage in the various privations and sorrows unavoidably consequent upon poverty.

Then Reynolds spoke these important words: "Accordingly, in the month of October, 1824, the speaker in conjunction with Dr. John Jeffries, hired a room in Scollay's Buildings; fitted it with such conveniences as their limited means enabled them to procure; and invited the poor, afflicted with diseases of the eye to come there for gratuitous aid."

In the autobiographical writings of John Collins Warren can be found another clue as to what may have led Reynolds and Jeffries into their enterprise. Warren, writing of St. Paul's Episcopal Church of the time had this to say: "During the interregnum, a number of us formed a private association for the purpose of religious improvement. We met weekly, on Sunday evenings, first in the vestry, and afterwards in our houses in rotation. The gentlemen comprising this society (besides myself) were Drs. Jeffries, Reynolds, Hale, Edward Tuckerman, James C. Merrill, and James C. Dunn, Esq." The group continued for several years and originated

and published a new prayer book. All of them, with the exception of Hale, played major roles in the early years of the Eye Infirmary. In those days when men prayed together, they often joined one another in charitable activities. Thus a case can be made for the theory that the Eye Infirmary had its genesis in Warren's "private association for the purpose of religious improvement."

III

Reynolds was first drawn into ophthalmology by the operation he performed on his father's eyes. His interests in the field deepened as he came to know the ophthalmic needs of Boston. When he learned that these needs were greatest among the poor, his response was to join with his friend and religious improvement colleague, John Jeffries, and to establish a personal charity. But where did he turn for guidance, perhaps even for inspiration? One commentator states that Edward Reynolds and John Jeffries founded the Massachusetts Charitable Eye and Ear Infirmary at the suggestion of Edward Delafield and John Kearney Rodgers, who had founded the New York Eye Infirmary in 1820. There is little in the record to support this statement. True, Reynolds and Rodgers were close friends, and it is safe to assume that there was a frequent exchange of ideas and experiences between the two men. So Reynolds would know of all the events that surrounded the establishing of the New York hospital. Evidence of this can be found in the Boston Eye Infirmary records. The idea of an eye and ear infirmary for the gratuitous aid of the poor did not originate in New York. Proof of this is provided by the commentator mentioned above who elsewhere in his article writes: ". . . they [Rodgers and Delafield] made bold to take up the actual task of establishing an eye infirmary in New York similar to the one in London." It is to London then that we must go to learn of the beginnings of the eye and ear infirmary movement, to learn of what was the real inspiration of both the Boston Eye Infirmary and the New York Eye Infirmary.

That first institution, opened on March 25, 1805, was named the London Dispensary for Curing Diseases of the Eyes and Ears. The founder was John Cunningham Saunders. The London Dispensary, now Moorfields Eye Hospital, might never have been and U.S. eye infirmaries might not have been had it not been for an unusual rule in England that required a general surgeon on the staff of one of London's teaching hospitals to have been articled at the College of Surgeons for a period of six years. Lacking this qualification,

Saunders, although well trained and employed in one of the teaching hospitals, had no hope of getting a hospital appointment in London. His friend and superior, the eminently successful Astley Paston Cooper, suggested that Saunders work for him at the teaching hospital in a part-time capacity and also begin a private practice as surgeon for diseases of the eye and ear. Because of the bad name that ophthalmic surgery had gained through the actions of itinerant quacks and oculists, no reputable surgeon in London had dared to have such a special practice. Yet Cooper knew from his own surgical experiences and observations that London was full of eye cases that called for the care that only an experienced surgeon could give. Saunders took a chance and took Cooper's advice. He was not long in his new practice before he was led to believe that more could be accomplished, particularly for the poor, if there were a public dispensary for eye and ear diseases. Cooper agreed, knowing that there was insufficient accommodations in the general hospitals of London for the treatment of diseases of the special organs. Along with Cooper, the staff of physicians and surgeons of St. Thomas's and Guy's Hospitals approved of the idea and lent their names to a proposal that Saunders circularized in that city. This step, and each subsequent step that Saunders took in establishing his eye hospital, would be followed religiously at later dates by the founders of eye and ear infirmaries in New York, Philadelphia, and Boston. Saunders's London Infirmary was truly the prototype of them all.

As a result of Saunders's circular, a committee was formed and held its first meeting at the City Coffee House on January 4, 1805. Resolutions were passed that instituted the London Dispensary, defined the area and mode of its clinical activities, selected its officers, and appointed its surgeon and physician. The Dispensary was to be financed by voluntary subscriptions. Upon contributing annually a guinea, the subscriber became a Governor with the right of recommending one outpatient to the care of the charity; if two guineas, then two outpatients, and so on. The appeal for funds was a quick success. Within weeks it was possible to lease a house and hire a nurse-housekeeper and a drug dispenser. During the first year, 600 patients were admitted, of whom 500 were said to be cured. At the end of four years, the number rose to 2,357, of whom 1,970 were "cured." The chief financial support of the Dispensary continued for some time to come from subscriptions and donations that were usually received at annual dinners. When there was a danger of a falling off of funds, a London preacher of note would be called on to deliver a sermon on behalf of the institution.

The question is often asked how did the eye and the ear ever get together in one special hospital and not in two separate hospitals. Although the eye and the ear are both sense organs, they are vastly different in anatomical structure, physiology, diseases, and modes of treatment required. Saunders was the first to bring them together in one infirmary. Why? A clue to his motivation can be found in a letter he wrote to his committee in December 1807: "Those who have practiced on the eye have always cultivated the ear, and when I chose the former for my professed pursuit, the latter also became the subject of my serious enquiry." As simple as that. The eye and the ear had always been together in private practice, so when he established his special hospital, it was natural they should be together there. This seemingly casual action of Saunders led directly to the world-wide acceptance of the pattern of eye and ear infirmaries and to what was to become the twin specialities of ophthalmology and otology. Having unwittingly sown such a seed, it is odd to find Saunders writing in the same letter for permission to cease treating diseases of the ear in the London Dispensary because of the vast number of incurable cases seen there. His best success had been with cases of inspissated wax. He wrote that to try to treat ear diseases and know so little success exhausted the institution's funds and diminished his reputation.

The Governors considered the matter and then voted: "That diseases of the Eye shall in the future be the sole object of the Charity, and that its name be changed to that of the London Infirmary for Curing Diseases of the Eye." So the first eye and ear infirmary became an eye infirmary. Such was not to be the case with many of the institutions which would model themselves on Saunders's original idea. It can properly be said that John Cunningham Saunders was the "father" of the eye and ear infirmary movement.

Having bestowed this fatherhood, it is also proper to take time to bestow another fatherhood. The "father" of the eye infirmary movement — note: the *eye* infirmary movement — was George Beer of Vienna. It was his idea to treat the eye diseases of the poor in free public clinics. He began in 1786 with accommodations in two rooms of his own apartment. It would seem that he met all expenses himself. By 1812, when a government eye clinic opened in the Vienna General Hospital, the Beer free eye clinic had faded from the picture.

In addition to fathering the eye and ear infirmary movement, Saunders enriched the nascent specialities of ophthalmology and otology by writing two textbooks. The first, *The Anatomy of the*

Human Ear, appeared in 1806; the second, *A Treatise on Some Practical Points Relating to Diseases of the Eye,* was issued posthumously in 1811. Saunders died in 1810 at the age of 38, five years after he founded his eye and ear infirmary. His position as surgeon at the infirmary was taken temporarily by Astley Paston Cooper. Some months later, Benjamin Travers was elected to the post. At the close of 1810, on the instigation of Travers, the practice of the infirmary was opened to medical students, many of whom were taking courses at St. Thomas's and Guy's. During its first seven years as an ophthalmic instruction center, the London Eye Infirmary enrolled 412 students. They came from the United Kingdom, India, Germany, and the United States. The best-remembered students to come from the United States were the already-mentioned Edward Delafield and John Kearney Rodgers, and, of course, Edward Reynolds.

All accounts agree that Delafield and Rodgers had been inspired by their London Eye Infirmary experiences to believe "the primary object in establishing an infirmary was to contribute towards the relief of the poor who by a diseased state of one of the most important organs of the human body are deprived of the means of gaining a livelihood." Their first action was to conduct a survey of the incidence of eye diseases in the city's population. This was the first such survey to be made in any city in the country. They were dismayed by their findings. Little or no care was the lot of the poor, the very group that knew the greatest incidence of eye diseases. Low-paid laborers, otherwise healthy, were forced from their work, often to become the unwilling inhabitants of almshouses, all because their eye problems had known no treatment. In addition, there were many self-respecting people of modest means, proud and independent, with no place to turn for their eye disease problems. Bellevue and New York Hospital, New York's two charity hospitals, seemed occupied with more formidable problems, those dangerous to life. Delafield and Rodgers could only conclude that there was certainly a place for an eye infirmary in the health care scheme of New York. Two leading members of the New York medical establishment, Wright Post and Samuel Borrowe, agreed with them.

Using their own money, Delafield and Rodgers began their eye infirmary experiment on August 14, 1820, in two small rooms in an old building in lower Manhattan. In seven months time, 436 patients were treated. The following spring, again advised and guided by Post and Borrowe, the young men turned to the public

for support. The rest of the story can be quickly told. Support did come from the public, in time financial aid would come from the state, and the New York Eye Infirmary, complete with a lay board of trustees, surgical staff, by-laws, and a charter came into being. The date — March 22, 1822. Although diseases of the ear were treated from the outset, the institution did not adopt the name New York Eye and Ear Infirmary until 1864.

The experiences of Philadelphia with its first two eye and ear infirmaries must also be told. The earlier of the two, founded in 1821, was first known as the Dispensary for Diseases of the Eye. In 1822 the name was changed to the Institution for Diseases of the Eye and Ear, and in 1823 it became the Philadelphia Hospital for Diseases of the Eye and Ear. In 1824 it was no more. The staff consisted of the brothers Dr. George McClellan and Dr. Samuel McClellan. All of the institution's short life seems to have been spent in the McClellans' office. The ten laymen who composed the Board of Managers advertised in the daily papers, inviting the poor of the city to partake of the institution's benefits. A year later George McClellan could report that no one was refused the charities of the institution. He could also report that during the first months "there had been ten cataract operations, two of which were by extraction, and eight by 'division' or 'depression.' Eight other cases of cataract had not been operated on. The total number of cases of all kinds were fifty-one. . . ." Not a good showing when compared with the 436 cases that had been treated in seven months by Delafield and Rodgers in their New York Infirmary.

The final announcement of the Philadelphia Hospital for Diseases of the Eye and Ear was published in 1823. Why was the hospital abandoned? One theory is that George McClellan became interested in establishing the Jefferson Medical College and did not have the energy for his other projects. Another theory is that the better-organized and probably better-financed rival institution, the Pennsylvania Infirmary for Diseases of the Eye and Ear, was filling the needs of Philadelphia.

In 1822, a year after the McClellan institution was established, the Pennsylvania Infirmary for Diseases of the Eye and Ear came into being. Several prominent Philadelphians, all charity-minded and all concerned with the plight of the poor afflicted with diseases of the eye and ear, came together, adopted a constitution and by-laws, elected officers, appointed surgeons, rented quarters, and then solicited the patronage of the public. Their public plea emphasized the importance to the patient and to society in the prompt treatment

of diseases of the eye and ear; it also stressed that the infirmary they proposed could know the success enjoyed by similar institutions in London and Vienna. They went on to point out to the citizens of Philadelphia that here was certainly an opportunity to exercise the zeal and liberality that had distinguished Philadelphians' support of useful charities in the past.

In spite of this plea and those that followed, in spite of the presence of such a prominent figure as Isaac Hays on its board of surgeons, the Pennsylvania Infirmary did not have enough public support to ensure an easy life or a long life. It did what it could in its chosen field until sometime in 1829–30, when it ceased to exist. Philadelphia would not know a viable eye infirmary until 1834, when the legacy of James Wills made possible the Wills Eye Hospital.

This survey of the eye infirmaries whose foundings predate that of the Massachusetts Eye and Ear Infirmary concludes with a brief account of the first such institution in this country. That first eye infirmary was founded not in one of the larger cities of the eastern seaboard, but in the small town of New London, Connecticut. The year was 1817; the founder and "conductor" was Elisha North, M.D., a figure of importance in early nineteenth-century Connecticut medicine.

From what we know, North's infirmary was a one-man operation in one or two rooms of the same offices he used for his general medical and surgical practice. He had no outside financial assistance, no programs of gratuitous treatment, no teaching programs, and no lay board of directors. His true position in the eye and ear infirmary movement is best told in his own words. First: "We succeeded, although not to our wishes in a pecuniary view of the case." And, second: "Our success and exertions probably hastened in this country the establishment of larger and better eye infirmaries."

The eye and ear infirmaries in the United States, in the order of founding, were: the New London Infirmary for Curing Diseases of the Eye, 1817; the New York Eye Infirmary, 1820; the Philadelphia Dispensary for Diseases of the Eye, 1821; the Pennsylvania Infirmary for Diseases of the Eye and Ear, 1822; and the Boston Eye Infirmary — later the Massachusetts Eye and Ear Infirmary, 1824. Of the five institutions, only two have survived to the present — the New York Eye and Ear Infirmary and the Massachusetts Eye and Ear Infirmary. With the exception of Elisha North's one-man operation, they all looked to John Cunningham Saunders's

1805 London Dispensary for Curing Diseases of the Eyes and Ears for inspiration and guidance.

IV

In the mid-1820s it was the custom in Boston to hold business meetings in the Exchange Coffee House, an edifice erected for that purpose. Here, on Thursday evening, December 29, 1825, there was a meeting of gentlemen "to take into consideration the expediency of establishing an Institution in this City, for the relief of the poorer classes afflicted with Diseases of the Eye." The Hon. John Welles was Chairman and James C. Merrill was Secretary. The first order of business was to hear a report by two surgeons, Edward Reynolds, M.D., and John Jeffries, M.D. The language of the report leaves little doubt that the two surgeons were the instigators of the meeting. They began by stating that they were desirous of inviting the gentlemen's attention to the Boston Eye Infirmary, an institution they had founded on October 1, 1824, for the treatment of diseases of the eye among the poor, a class of citizens, who from their various habits, occupations, privations, and exposures were peculiarly subject to diseases of that important organ. They went on to relate how they had been induced to engage in their undertaking after extensive observations of the incidence and prevalence of eye disease in Boston during a six-year period had shown them that it was the poor who knew annually the greatest amount of serious suffering and that there was no efficient provision in the city to alleviate their lot. A public eye infirmary, properly founded and funded, was their answer. They had established their eye infirmary, had operated it on their own funds for almost 15 months as an experiment to prove or disprove their convictions. The gentlemen would now hear of their experiences.

First, 859 patients had applied for relief in the less-than-fifteen-month history of the Boston Eye Infirmary. It was believed that these represented only a part of those who suffered, that more would have applied had they been acquainted with the existence of the institution. Of the number that did apply, 82 suffered from diseases of the ear, and 777 from diseases of the eye. Thirty eye patients and 27 ear patients were found to be incurable. Seven hundred eighteen patients were cured and 26 were relieved. At least a fourth of the cases were various ophthalmias and infections of the lids and conjunctiva. The report did not detail where the surgery on the 46 cases of cataract had been done. Information was given

Scollay's Building. Here Reynolds and Jeffries in October 1824 rented a single room for their Eye Infirmary.

on one case of congenital cataract that was successfully treated, so that the child no longer had "to grope its helpless way through a world of darkness and inactivity." Four patients, led to the Infirmary blind and with certificates from their physicians stating that their diseases were incurable, were returned home to their friends with their vision restored. Each day's experience, Reynolds and Jeffries said, afforded them striking proofs of the importance of their labors. In many instances, it was their unhappiness to hear unfortunate, incurable patients lament that such an institution had not existed earlier, when they themselves might have felt free to apply for relief.

Second, Reynolds and Jeffries offered to the assembled gentlemen tangible proof with their case records and the summary of their clinical work that Boston needed an eye infirmary. They had no such documented proof of the effect that untreated eye diseases had on the city and its industrious poor. Here they had to rely on their eloquence. To them it was obvious that the evils of these eye diseases added to the miseries of want, that every benevolent heart should answer the loud call for sympathy. When afflicted with any acute eye disease, a man whose daily bread depended on the toil of his hands, had to suspend his labors. If the suspension of those

labors was long, then the man, of necessity, became a public charge. Those he had been supporting also became public charges. Every public asylum in the city housed examples of such misfortune. Yet, most of these diseases, if early attended to, knew an easy and rapid cure. If support were given to the Boston Eye Infirmary, the Almshouse and other charities would know fewer inmates; and many people fated otherwise for such an existence would know instead happiness and the pursuit of their various callings. Such was the experience of New York and its Eye Infirmary. Common sense said that it cost far less to treat a patient in the Infirmary than to maintain an inmate in the Almshouse. Those who from charitable sentiment financially supported an eye infirmary performed a double service: They often helped to put an end to the deplorable and unnecessary suffering of their less fortunate brethren, and they enabled the city to lower its tax levy.

The surgeons had a third reason for a public eye infirmary in Boston. It could become a teaching center. Such an establishment would open to the entire medical profession a wide field of observation; it would afford medical students an opportunity of seeing, in a short time, many of the various eye diseases, and it would enable them to develop diagnostic and therapeutic acumen. In time the public would derive benefit when these new, well-trained practitioners would certainly bring relief to many suffering members of the community, regardless of their class.

Edward Reynolds and John Jeffries summarized their three points for supporting a public eye infirmary with these words: ". . . a powerful agent in relieving human suffering — a valuable auxiliary in the pursuit of Medical Science — one instrument, by no means inconsiderable, of aiding public economy." With that said, they cheerfully committed the Boston Eye Infirmary to the "fostering care and benevolence" of the assembled gentlemen.

The gentlemen responded by unanimously adopting a resolution: ". . . that, in the opinion of this meeting, a Public Institution, similar to those in London and New York, for curing Diseases of the Eye, has become highly important, and will essentially serve the cause of humanity." It was their opinion that the proposed Boston public institution should have as its basis the Boston Eye Infirmary that Reynolds and Jeffries had already begun. To implement these resolutions, they appointed a committee of eight, giving them the power to conduct the affairs of the Infirmary for the present and to collect subscriptions from the public for its support. When fifty subscribers had been obtained, a meeting would

be called and from among the subscribers a board of directors would be elected with the power to form a constitution and by-laws.

For reasons of indisposition and the unfavorable state of the weather, one citizen of Boston, perhaps one of the city's most important citizens, John Lowell, did not attend that December 29 meeting. Instead, half-an-hour before the meeting, John Lowell wrote the chairman a letter that he asked to be read. The letter was important to the Infirmary, not only because John Lowell wrote it, but also because in it he provided answers to the dubities that the subscriptions committee would later face. First, he approved of the proposed establishment, characterizing it as being the most eminently and extensively useful that had been proposed in Boston since the institution of the Massachusetts General Hospital. The only doubt that had been in his mind on hearing of the intended institution was whether the Massachusetts General Hospital did not offer an adequate and perfect source of relief to the virtuous and laboring poor of the city. The fact that Reynolds and Jeffries's unpatronized, private benevolent institution had known 859 applications in less than 15 months had removed that doubt from his mind.

What about the idea of a special hospital with the certain specialization in medicine? With the eyes of a businessman he looked with favor on the idea. It was his experience that a division of labor had produced astonishing results in industry. What had worked there would certainly be "still more important in refitting and restoring that infinitely complicated machine, the human body." Lowell closed his letter by reminding the gentlemen that, although the example of New York and its Eye Infirmary might have some influence on them, when it came to the cause of philanthropy and Christian charity, Boston needed no influence or example.

The committee of eight published over their names the complete record of the meeting — the report of Reynolds and Jeffries, the approved resolutions, the letter of John Lowell — and used it as an appeal to raise money for their institution for curing the diseases of the eyes of the poorer classes of Boston.

Three months later, March 20, 1826, the gentlemen met again at the Exchange Coffee House. This time they met as the Subscribers to the Boston Eye Infirmary. To preserve a record of their deliberations, a leather-bound ledger with the words "Boston Eye Infirmary" stamped on its cover had been purchased. The drive to obtain subscribers to the institution had been a success. Sixty names, all good Boston names, were on the roster. In the treasury was

$2,670. According to Reynolds, one committee member, Lucius Manlius Sargent, by his personal exertions had in one week collected more than $2,000 as a permanent fund, and nearly $300 in annual subscriptions. Now, in keeping with the resolutions of the earlier meeting, the group organized itself formally. Edward Tuckerman, Esq., was elected president and twelve Subscribers were named Directors.

Three days later the Directors met and appointed Edward Reynolds and John Jeffries as Surgeons. They were instructed to proceed as they had in the past until rules and regulations were adopted. They were requested to seek more suitable rooms for their operations. A committee of two, along with the Surgeons, was appointed to draft the by-laws.

V

Things moved rapidly. One week later, April 6, 1826, the by-laws committee reported back to the parent body. With a few amendments, their report was accepted. The first article read: "This Institution shall be denominated the Massachusetts Charitable Eye & Ear Infirmary." No reason appears in the records for dropping the name Boston Eye Infirmary and adopting the new one. However, it can be speculated the "Massachusetts" was substituted for "Boston" because the directors planned to solicit financial aid from the state, and the surgeons were prepared to treat any eligible resident of the state, not those from Boston alone. The word "Charitable" was truly descriptive of the nature of the enterprise. And, "Eye & Ear" left no doubt that both organs would receive medical and surgical attention. Why was "Infirmary" retained in the name? No answer, except that it had been there and that it was used by the prototype institutions in New York and London.

Time proved that the new name was too long and cumbersome for every-day use. In print and elsewhere, it was variously referred to as the Infirmary, the Eye and Ear, the Eye and Ear Infirmary, the Boston Eye and Ear Infirmary, the Eye and Ear Foundry, and the Mass. Eye and Ear. Legally, the name of the institution remained the Massachusetts Charitable Eye and Ear Infirmary until 1924 when the word "Charitable" was deleted, shortening the name to its present Massachusetts Eye and Ear Infirmary.

And so it was that after 18 months of existence, the Boston Eye Infirmary ceased to be and the Massachusetts Charitable Eye and Ear Infirmary came into being and made the first formal steps to

organize itself. The next step was to obtain a charter from the Commonwealth and become a legal entity.

This step was taken at the end of 1826 on the advice of a committee that had been appointed to determine the expediency of applying to the state Legislature and the city of Boston authorities for aid to the funds of the Infirmary. It was the committee's opinion that it would not be judicious at that time to apply to the city authorities, but that assistance might be expected from the state Legislature if the subject were fully and discreetly presented. However, the first object of the Directors should be to apply to the Legislature for an Act of Incorporation. So, a committee was appointed to apply to the Legislature for such an Act of Incorporation and also to obtain aid for the funds of the institution. The committee was 50 percent successful. On February 22, 1827, the Act was approved by Governor Levi Lincoln. The respectful petition for financial aid was not answered at that time.

Some of the powers and limitations of the now-incorporated Infirmary are made clear by these words that appear within the Act:

> *. . . hereby incorporated and made a body politic for the purpose of gratuitously relieving and curing diseases of the Eye and Ear, and of enabling poor persons afflicted with such diseases, to submit to a course of Medical* treatment *for the same reason. . . . hereby liscensed and empowered to make purchases, and to receive grants, devises, and donations of real estate to the amount not exceeding Thirty thousand dollars. . . . Said managers shall appoint surgeons . . . and provide medical and surgical instruments. To distribute money among poor patients to defray expenses of board whilst under treatment. . . .*

The first incorporated meeting of the Infirmary Society was held on Monday evening, March 6, 1827, in the Infirmary's new rooms in the Massachusetts Charitable Mechanics Association Building at the corner of Court and Tremont Streets, Boston. Quite properly, the Act of Incorporation was read by Lucius Manlius Sargent. Next, Edward Tuckerman was elected President. A Secretary and Treasurer were also elected. From among the Subscribers, twelve Directors, or Managers as they were termed, were chosen. The Surgeons, Edward Reynolds and John Jeffries, according to the bylaws, were ex-officio members of the Board of Managers. The same Board of Managers also appointed them to their surgical

posts. The awkwardness of this arrangement did not become apparent for some years. The first incorporated meeting ended with the president appointing a committee to revise the by-laws, so they would be in keeping with the Act of Incorporation. Another charge of the committee, also in keeping with the Act of Incorporation, was to prepare a common seal.

At a subsequent meeting, the committee submitted their design for the common seal. It was about two inches in diameter. Around the outer circumference appeared the legend: "Massachusetts Charitable Eye & Ear Infirmary, Feb. 23, 1827." Next to this circle of words was another circle of words in Latin, the Infirmary's motto: "DEO. Surdi audiunt. JUV. Caeci vident." or "The deaf hear — the blind see — with the help of God." This motto was inspired by Matthew 5:11, in which Christ is recorded as replying to an inquiry of John the Baptist with the words: "The blind receive their sight, and the lame walk, the lepers are cleansed, and the deaf hear, the dead are raised up, and the poor have the gospel preached to them." The center of the seal was filled with an image of the rising sun to denote the return of sight, and also with an image of the waves of the sea to denote sound and hearing.

There would be no changes in the organization of the Infirmary, as outlined in its by-laws and Act of Incorporation of 1827, for at least fifteen years. The Massachusetts Charitable Eye and Ear Infirmary was a private voluntary charity with the purpose of gratuitously relieving and curing the eye and ear diseases of the sick-poor. It was a self-governing body. As long as none of its actions were repugnant to the state laws, it was answerable only to its subscribers, not to the public. All monies came from Subscriber donations. There were two types of subscribers. The first was a Life Subscriber, who was any person not disapproved by the Managers who paid $40 or any larger sum. Such a Subscriber could participate in annual business meetings, vote for officers, and be a candidate for office. The second type of Subscriber was the Annual Subscriber, one who had paid $5 or less. These Subscribers could participate in the annual business meeting affairs, but only during the year of their payment. It is estimated that in 1827 there were over 60 Subscribers of both types.

The officers, chosen from the Subscribers and by the Subscribers, were President, Secretary, and Treasurer, with the powers usual to those positions. The governing body, which met quarterly, was the Board of Managers, twelve in number, again taken from the Subscribers. One committee from the board audited the books and

approved the actions of the treasurer. Another committee, the Standing Committee, had the general care and direction of the Infirmary, giving orders and establishing such regulations as they thought proper. Every month one or more of the Standing Committee members visited the Infirmary rooms to determine the welfare of the patients and the operation of the enterprise. The same committee appointed the apothecary and hired the porter.

The two Surgeons, Reynolds and Jeffries, appointed by the full Board of Managers, were given the power to receive into the Infirmary, or otherwise provide for any patients who in their judgment were proper objects for the charity, as far as the funds of the institution permitted. At least one Surgeon was to attend at the Infirmary every Wednesday and Friday from noon to one, and every Monday both Surgeons were to attend from noon to one.

On the wall of the main room of the Infirmary, the Managers caused a sign to be hung: "This institution is designed for the benefit of the poor who are not able to procure relief elsewhere." This was a public declaration of the purpose of the Infirmary. Coupled with this was the private determination of the Managers and the Surgeons that: ". . . the Infirmary doors will never close upon any applicant, whom it was able to receive, and its last dollar would be expended for their benefit." In 1828, according to the Treasurer's Report, they did expend that last dollar and more.

The total receipts for that year, income from the permanent fund plus the annual subscriptions, totaled $355.62. The expenditures for the same time were $376.76; an overrun of $21.14. Added to this was $24 for the porter's services that the Surgeons had paid out of their pockets. And there was a large bill for medicines that had not been settled, amounting, it was thought, to from $150 to $200. The fuel bill had not been paid and there were perhaps some other expenses. The total deficit for the year could be as much as $250.

Submitted at the same time as the Treasurer's Report was the Surgeons' Report. In many ways, this report is typical of the reports for the next ten years. As stated earlier, the Infirmary was open to treat patients three days a week — Monday, Wednesday, and Friday — from noon to one. In 1828 there was a total of 681 patients treated; a daily average of about five patients. One patient in six suffered from diseases of the ear. Of the total number of patients seen, 540 were cured; 25 relieved; 68 not treated or declined treatment; and 48 continued under treatment. Of the 583 ophthalmic cases listed, at least 100 would, by today's standards, require sur-

gical treatment of some sort. Some of these, such as the two cases of warts of the lid, would have been minor surgery that was performed in the Infirmary's rooms. Other cases, such as the 28 cases of cataract, as major surgery would have been performed in the patients' homes or in boarding house rooms paid for by the Infirmary. This did not handicap the Surgeons for they were able to report that "every case of cataract, for which operations have been performed, had been successful, so far as the result has been ascertained."

Because detailed patient records for the period are lacking, there is no way of knowing for certain the type of cataract operation, or other eye operations, Reynolds and Jeffries may have performed. The same can be said for the medical treatment they rendered. It is here suggested that some idea of the details of their ophthalmic medicine and surgery can be learned by reading the textbook written by Benjamin Travers, Reynolds's former mentor at the London Eye Infirmary. An American edition of this text, edited by Edward Delafield of the New York Eye Infirmary, was issued in 1825. As for Reynolds and Jeffries's aural medicine and surgery, perhaps they turned for instruction to the 1821 text of John Cunningham Saunders, founder of the London Eye Infirmary. Their comments on ear diseases is of interest: "Diseases of the Ear are of necessity less satisfactory in the result of treatment than those of the Eye; many of its diseases will most probably ever remain the opprobria of the Profession. But the success has perhaps been as great in this neglected branch as ought to be expected."

The financial outlook of the Infirmary for the next year, 1829, disturbed Treasurer William T. Andrews. If all went well, he estimated there would be an income of $320. He would need $200 for rent, $52 for the porter's salary, $50 for the apothecary's bill, and $20 for wood and incidental expenses, a total of $322. He knew there would be other expenditures, the amount of which and the nature of which he was ignorant. What he did know was that the state and prospects of the treasury were anything but cheerful, that there would have to be some active exertions to change the face of things. Not feeling competent to advise, he submitted the subject to the consideration of the Subscribers.

The Treasurer had mentioned the out-of-pocket expenditure by the Surgeons for the porter's salary. In the early years of the Infirmary, this was a common practice of Surgeons and Managers. The Surgeons, with their daily experiences, knew best the growing pressures that were being made on the institution. There had never

been any advertisement or public notice of the existence of the Infirmary, but those patients who had been cured sent others, and thus the number of applicants had increased. The amount of money available did not increase. Considerable sums for all purposes were obtained privately by the Surgeons from the Managers and from friends. These sums never appeared in the Treasurer's accounts. Reynolds described the situation by saying: "We often deplored our small resources and exhausted the scripts of charitable friends."

The response of the Subscribers to the Treasurer's Report was to appoint a committee to bring the claims of the Infirmary before the public. It was the expressed belief that the Infirmary and its works need only be made known for the confidence and patronage of the public to be secured. Remembering the deep religious nature of the Surgeons and many of the Managers, it is no surprise to learn that five of the seven committee members had the title "Reverend" before their names. The committee went about its task by preparing an appeal that included a history of the Infirmary and a detailed list of reasons why the industrious poor of the community needed its services. Many of the reasons were elaborations of those earlier advanced by Reynolds and Jeffries at the first meeting of the Boston Eye Infirmary. It can be assumed that one of the divines on the committee penned the last sentence: "Here — many have been restored to the privilege of the sabbath and weekly schools — and here, in fine, very many, in almost hopeless blindness; or deaf with any expectation of relief, have been restored to domestic comforts, social joys, and civil and religious duties."

One thousand copies of the appeal were printed for distribution. A mailing list was obtained by asking several clergymen for names of their local families to whom the appeal could be sent with the best purpose. Later a follow-up appeal was sent to those who had received the first appeal. After five months of effort, the committee reported that it had raised $400 and that it hoped to increase the sum. The Managers, perhaps not too happy, appointed another committee and charged it to bring the claims of the institution before the state Legislature. In time that committee reported back that no money would be forthcoming from the state.

It is in the minutes of the July 29, 1830 meeting of the Managers that we learn of a change in the financial fortunes of the Infirmary. "*Voted*: That the Secretary be directed to communicate to the executors of the late Jeremiah Belknap the grateful sense which this board entertains for the bequest of one thousand dollars which they hereby acknowledge to have received . . ." This was the first such

bequest the Infirmary had received. There would be more, including one from Sarah Belknap, sister of the "venerable" Jeremiah.

The Managers concluded that memorable meeting with a burst of uncharacteristic generosity. They authorized the Surgeons to appoint some medical gentleman to be Apothecary for the salary of fifty dollars per annum. And the Surgeons were authorized to import for the institution such anatomical preparations in wax as they may require to enable them to give a course of lectures on the subject of diseases of the eyes and ears. This they could do provided the cost of the same did not exceed one hundred and forty dollars.

Treasurer Andrews must have been a more cheerful man at the end of the 1832 fiscal year, for he was able to report that he had a credit balance of $293.96 in the bank account and that the $4,000 of the permanent fund was securely invested in mortgages and insurance stock. The brighter financial picture did not satisfy the Surgeons. The city was growing, the number of its sick-poor growing, and immigrants from abroad becoming common on Boston's streets. Many of these, upon debarking, made the Infirmary their first stop to receive treatment for their "sore eyes." More people from the country and from the small towns of Massachusetts were being turned away because the Infirmary had only its rooms, no house or hospital to lodge and treat these proper objects of the charity. John Jeffries's eloquent plea for the purchase or erection of a suitable building ran counter to the caution of President Edward Tuckerman, who agreed in principle with Jeffries, but advised against "incurring great expences for the present moment while other great operations were before the public mind." By way of compromise, it was decided to obtain more commodious quarters for the Infirmary by moving it from the Mechanics Building to the Salisbury Building on Summer Street.

In a small way, this answered one of the problems of the Surgeons. Their second problem, that of the growing number of patients needing treatment and the limited size of the surgical staff, could only be answered by a change in the by-laws. The original by-laws limited the staff to two men, Edward Reynolds and John Jeffries. At the close of 1833, this was changed to read: "The Managers shall appoint two or more Surgeons and assistant Surgeons as they shall judge that the interests of the Institution may require, who shall hold their respective offices subject to removal by the managers." Immediately, Henry A. Ward, M.D., was elected Assistant Surgeon for Diseases of the Ear. Dr. Ward held the appointment for a little over a year. At the time of Ward's appointment,

two other Assistant Surgeons were named, Dr. Davenport and Dr. Cunningham. Also named was the first Apothecary, John Homer Dix.

The apothecary held a lowly staff position in many early nineteenth-century hospitals. Some idea of the responsibilities and duties of these young men can be learned by reading what the Infirmary required of its Apothecary. It was asked that he be a gentleman and a student of medicine and that his appointment be recommended by one of the Surgeons. His first duty was to prepare and deliver all medicines prescribed agreeable to the formula as directed by the Surgeons. He had charge of all the medicines, instruments, and apparatus; he had to keep the same in perfect order; he could not lend them or allow them to be used without an order from the Surgeons. When directed by the Surgeons, he performed the operations of bleeding, of cupping, and of the application of leeches. And last, he must obey all reasonable directions of the Surgeons. For this he received a fifty-dollar-a-year salary and such medical education as he could.

John Homer Dix received a B.A. degree from Harvard in 1833. That year he began the study of medicine under the preceptorship of John Jeffries. A year later he received his Infirmary appointment as Apothecary. He remained with Jeffries and the Infirmary until he left to go to the Jefferson Medical College, Philadelphia, to take his M.D. degree in 1836. He later held appointments as House Surgeon and Assistant Surgeon at the Infirmary, 1837–40. In time he would claim that he was the first U.S. doctor of high professional standing to become a full-time specialist in ophthalmology and otology.

There are those who equate the nineteenth-century hospital appointments of Apothecary and House Surgeon with today's appointment of Resident. If this is proper comparison, then John Homer Dix was the first Resident to be trained in ophthalmology and otology at the Infirmary.

VII

When the Managers held their regular Quarterly Meeting in the home of Secretary Samuel H. Walley, Jr., on November 3, 1834, they voted into existence a committee that would prove to be the most important committee in the Infirmary's brief history. This committee was given two charges: first, the perennial one of soliciting new subscriptions, and second, ". . . to take all such meas-

ures as they may judge expedient to procure a house, land, etc. for the use of the Infirmary." There were no clergymen on the committee. Instead, the five gentlemen were businessmen and lawyers. The most active of their number would be Joseph P. Bradlee.

At the first Quarterly Meeting in 1835, Mr. Bradlee reported that although donations had been received from sundry persons, he needed more time for his committee. The request was granted. He could not report to the Managers at their next two quarterly meetings, May and August, because of the absence of a quorum. When the Managers met in November, his report was a glowing one. There was $1,582.32 in the bank account and $14,232.32 in the permanent fund. As a reward, Bradlee found himself appointed to yet another committee, one with full powers to purchase an estate on Washington Street or any estate that he and his committee might judge best suited for the purpose of the Infirmary. They could draw on the Treasurer for *all* the funds of the institution. It is possible that this action did not meet with the approval of everyone, for we learn that about this time William T. Andrews resigned as Treasurer and Edward Tuckerman as President. Robert Gould Shaw was elected to the latter post, holding it until his death in 1853.

It took Joseph P. Bradlee and his committee six months to complete their charge. In May 1836 they announced to the Board that they had purchased the Rev. Dr. Samuel Parkman's mansion house and land at the corner of Green and Pitts Streets for the sum of $20,000. The purchase was later completed by withdrawing $9,000 from the treasury and taking out a mortgage of $11,000 for the balance. On November 1, 1836, the Board received the key of the house on Green Street. Reynolds was later to describe the terms as so liberal as to be considered the equivalent to a valuable donation from the heirs of the late Samuel Parkman. This liberality may have come about through President Shaw's relationship by marriage with the Parkman family.

At last the Massachusetts Charitable Eye and Ear Infirmary had a home of its own — a place to house its patients, although some patients would still be treated in their own homes.

The property had been commonly known as the Gore Mansion. Prior to having been owned by Samuel Parkman, it had been owned and built by Samuel Gore, a Boston gentleman artist with the claim to fame of having participated in the Boston Tea Party. It was located a few feet down Green Street from Bowdoin Square. At one time this had been rather an elegant neighborhood with fine

homes built in the Georgian style, with elaborate flower and fruit gardens, and with a bowling green. But times changed and the wealthy Bostonians ceased to regard it as a proper neighborhood. Around the periphery was a growing slum area that would soon contribute patients to the Infirmary. Keeping this fact in mind, the location was a good one. Another point in the location's favor was its proximity to the Massachusetts General Hospital — less than a five-minute walk away.

With a house of their own, although mortgaged, with money in the bank, and with a ten-year record of gratuitously treating the sick-poor of the state, the Managers felt that the time had come again for them to petition the Legislature for financial aid. This would be the third attempt. Why the state had turned a deaf ear on the first two occasions is not known. Perhaps the political scene was not right; or, perhaps, to use today's language, the Infirmary was not an "attractive package." If so, then in January 1837, the date of the petition, the Infirmary was more attractive than it had ever been. A copy of the petition has been preserved. It is surprisingly brief, occupying a single handwritten page. The Senate and House of Representatives were respectfully reminded that they had incorporated the Infirmary in 1827. Since that time, the petitioners believed that they had accomplished much good in the community with their limited means — all of which had come from contributions of benevolent individuals. But the demands had grown too great, the Institution ought to be placed on a firmer financial foundation, now was the time for the Commonwealth to bestow its patronage. The petition closes: ". . . therefore pray the honorable body to grant it such pecuniary aid as in your wisdom may deem proper to enable it to accomplish the object for which it was founded."

The speed with which that 1837 session of the Legislature worked is amazing to any citizen of Massachusetts today. Four months after the petition was submitted, the Infirmary had its answer and had money in its hands. The state, after a thorough investigation of the worthiness of the Infirmary as a public charity, agreed to give $5,000 to alter, repair, and furnish the Green Street property. In addition, the state would give the Infirmary $2,000 a year for five years for current expenses. A total of $15,000. The Infirmary would continue to receive yearly sums from the state until 1918 when the Anti-Aid Amendment went into effect. At that time, the Infirmary had been receiving $45,000 a year.

The Managers lost no time in spending the money from the

state. They approved the expenditures of $2,000 for repairs and $1,000 for furniture. But, it would seem that all had been going too well too long for the Infirmary. During the early morning hours of June 4, 1837, an unknown arsonist set fire to the main building and sheds of the Green Street property. It took the efficient exertions of the Boston Fire Department to preserve a large part of the main building; the sheds were lost. The scheduled opening was delayed by the catastrophe. Fortunately, someone had had the foresight to insure the structures. With the promise of a settlement from the insurance company, the Managers gave the authority to proceed with the repairs to the destroyed end of the main building and the erection of such new sheds and outhouses as would be necessary. The cost proved to be $3,100.

Knowing how the Bostonians of the 1830s dearly loved a celebration, it is hard to understand why there were no ceremonies when the Massachusetts Charitable Eye and Ear Infirmary moved from its dispensary and opened the doors of its first hospital on July 19, 1837. It was business as usual — patients were seen in the clinic, and one patient was admitted to the house.

Reports that have come down to us describe the Infirmary's first hospital building and its accommodations as being well calculated to answer the purposes of the institution. It was substantial, commodious, and airy with apartments agreeable and well-arranged. As many as 20 patients could be housed. There was a clinic for day patients, an operating room, quarters for the domestic staff and the house physician, kitchen, laundry, and storage pantries. Oil lamps were the source of illumination; coal, wood, and charcoal the source of heat. There were no facilities for bathing; all the water came from wells and cisterns on the grounds. On the same grounds was the privy vault. It cost $24.00 a year to keep this necessary in efficient order. In all, the place was deemed to be a "comfortable asylum, . . . supplied gratuitously to the poor who suffered under the severest of afflications which can befal them."

The domestic staff consisted of three women: Mrs. Mary H. Homer the Matron, Sarah Rafaty the cook, and Sarah Ann Conley the domestic. All lived in the house and received their meals. In addition to room and board, Mrs. Homer received $250 a year, the cook $95 a year, and the domestic $58 a year. In an emergency, a woman would be hired as a watcher for 75 cents a night. The clinical needs of the patients, the purchase of supplies, and the keeping of the accounts were the responsibilities of John Homer

Dix, M.D., House Physician. Remembering the fire, the premises were guarded by a $5 dog with a $1.25 collar and a $2 license.

The founders, Edward Reynolds and John Jeffries, headed the surgical staff. In 1836 they had been joined by George Amory Bethune and Robert W. Hooper as Assistant Surgeons. These two were of fine old Boston stock. Both had gone to Harvard College and Harvard Medical School. Both had furthered their medical education in Europe. Years later, Hasket Derby would describe them somewhat unkindly as: ". . . two amiable gentlemen of independent means, fairly well versed in the ophthalmic surgery of the past. They labored in an old fashioned conscientious manner, were kindly and charitable, as well as regular in their attendance." The staff rule of 1837 called for one of these four men to be present in the Infirmary daily except Sunday to care for the clinic patients and the house patients. Most of the surgery was done by the two senior men, assisted by the junior men. The immediate daily care and treatment of the house patients was committed to the House Physician, John Homer Dix. Thus the Infirmary hospital had a staff of five — two Surgeons, two Assistant Surgeons, and one House Physician.

At the end of March 1838, the Standing Committee of the Board of Managers filed a report on the state of the Infirmary's affairs. In it we find detailed a facts-and-figures picture of the institution during its first 8 1/2 months as a recognized and supported public charity, its first 8 1/2 months as a regular voluntary, non-profit hospital with its own building.

As stated earlier, there were beds for 20 patients. During the months under study, these beds had been occupied by 60 patients, of which 35 were males and 25 females. Seven were under the age of ten. Sixteen of the patients had come from Boston, 44 from the country. Forty were cured or improved, five were incurable, two declined treatment, and 12 were continued.

Experience had taught that the household expenses and medicines for each patient was about $1.50 a week. An arrangement was made, that such as were able would pay a low figure for board, while those who were destitute would be received on charity. So each patient who could paid $3 a week and thus allowed a charity patient to be treated without encroaching on the funds of the institution. The total expenses for nine months, from July 19, 1837 to April 19, 1838, were $1,498.33. Paying patients provided $337.68 of this sum, leaving $1,160.65 cost to the institution. During the

same period, 484 outpatients were seen — 390 with diseases of the eye and 94 with diseases of the ear. These patients knew no charge for treatment or medicine, and, of course, the Surgeons served without compensation.

The record of the first patient to be admitted to the Infirmary's first hospital has been preserved. The day of his admittance was July 19, 1837. He was Richard Blood, aged 41, of Groton, Massachusetts, married and the father of four children. Two years earlier both of his eyes had been severely injured while he was blasting rocks. The injuries were so severe and incapacitating that he was forced to become an inmate of the almshouse at Groton. There — to use the language of the time — he languished for almost a year before applying to the Infirmary for treatment. On examination, Dr. Jeffries found that there was a closure of the pupil of the left eye and an adhesion of the iris to the cornea towards the inner canthus. A similar condition existed in the right eye, along with a capsular lenticular cataract. The conjunctiva and cornea had many spots of brick red color from the presence of foreign substances. The man was so blind as to have little more than light perception. At that time, 1836, the Infirmary did not have its own hospital so he was boarded in a private lodging house. Here he was kept on a nutritious diet for about six weeks until his state of depletion was corrected. Then Dr. Jeffries operated on the cataract of his right eye. The operation was that of dissolving the cataractous lens, not extracting it. This meant that some time would pass before the final results of the procedure could be known. Blood went back to Groton, and returned to the Infirmary on July 19, 1837, to be the first house patient. Jeffries found that the pupil of the right eye was clear from all traces of the cataract and that there was very comfortable vision. An attempt, that knew partial success, was made to remove the red spots from the cornea. By November 1837, Richard Blood's sight had become stronger, he was supporting himself, assisting his family by his labors, and was no longer a burden to the town of Groton.

Jeffries commented that in a single year forty-one cases of injuries of the eye from foreign bodies, glass, metal, coal, and the like, were seen at the Infirmary. Cases of this nature were constantly increasing with the extent of manufactories and the multiplication of railroads. Many of these patients, such as Blood, had been restored to health and to their occupations, when immediate application for advice had been made.

The Charter and the Constitution of the Infirmary required that

an annual business meeting should be held in October each year. At these meetings the officers for the coming year were elected, committees were appointed, Surgeons' appointments were renewed, and reports read. The most important of such reports being that of the Treasurer. In 1838, the last year to be treated in this chapter, the Treasurer was J. Wiley Edmands. He held the post from 1835 until his death in 1877. In reading Mr. Edmands's report, it is important to remember that in 1827 — eleven years earlier and the year of the Infirmary's incorporation — there had been $2,700.00 in the treasury with no real estate and no debts. And that in 1828 — ten years earlier — the Infirmary nearly failed because of an annual deficit of about $250.00. Mr. Edmands's trial balance is as follows:

The Property of the Institution consists of	
Amount in Hospital Office	$ 6,700.00
Real Estate in Green Street	22,149.34
In hands of A. & A. Lawrence Co.	2,224.51
Cash in hands of Treasurer	5.83
	$31,079.68
Deduct amount of the Note Given in purchase of Green St. Estate	11,000.00
Prop'y of M.C.E.&E. Inf.	$20,079.68

That year there had been paid out on account of current expenses $1,850.50. The annual subscribers had paid in $108.00.

One item that looms large in this report is the mortgage note of $11,000 on the Green Street property. That figure would not remain there long, for in the *Boston Almanac* for the year we read: "Sept. 26, 1838. William E. Paine, Esq., late of Boston, who recently died in Europe, left $10,000.00 to the Massachusetts Charitable Eye and Ear Infirmary, Greene Street." Edward Reynolds later commented on this bequest: "The noble legacy of ten thousand dollars left by Mr. William C. Payne, was from the recollection, while dying in a foreign land, of a poor dependent, whom he had formerly confided to its [the Infirmary's] care."

That poor dependent could have been Benjamin Paine, a 43-year-old seaman from Brewster, Massachusetts. Seaman Paine's father had been blind from cataracts. Dr. Jeffries had operated on a brother for cataracts with the result that one eye was lost to inflammation and the other had vision useful for reading. Benjamin Paine, a $3 a week paying patient, entered the Infirmary in October 1837. A month later the cataract in his right eye was operated on

by depression. A year later, November 1838, he returned to have the left eye treated by breaking-up operation. There were good results in both eyes. Dr. Jeffries, assisted by Dr. Hooper, was responsible for the operations.

The Managers used the $10,000 Payne, or Paine, bequest to pay a large part of the mortgage. Once this was done, the Infirmary knew no financial insecurity and had no debts until the early 1870s when a general financial panic gripped the country. So sound was the institution that in 1850 it was able to leave the Gore Mansion on Green Street and build a new hospital at 175 Charles Street with no money problems at all.

This chapter has covered the founding of the Massachusetts Eye and Ear Infirmary and its financial and clinical history for the period 1824 through 1838. Frequent references have been made to sums of money spent and sums of money received. But what do these sums mean in relation to earning power? This is not an easy question to answer, but a clue can be found in the following piece of information. During this period, the top of Beacon Hill was being removed. Contractors were paying unskilled laborers who worked an 11-hour day a beginning rate of 83 cents a day. This was later increased to $1.17 a day. Teamsters, experienced ox-drivers from the country, were paid $26 a month and board. Using these figures, it can be said that the wages for unskilled laborers at that time was about 8 cents to 12 cents an hour.

VIII

The year 1838 marks the end of the beginning of the Massachusetts Eye and Ear Infirmary. In the 14 years since 1824, it had passed from a private personal charity dispensary of two men to become a voluntary non-profit institution, supported in part by public funds. In that length of time, its finances had become secure; its position in the Boston health care scene had become secure. An examination of the reasons for this success is in order.

One reason the Infirmary endured and similar institutions in other cities failed can be found in Article 3 of the first by-laws. It reads as follows: "All subscriptions and donations of sums other than annual subscriptions shall be made a permanent fund and the income only applied to the current expenses of the Infirmary." In 1827 there was about $2,700 in this permanent fund. Its small income kept the Infirmary viable during the lean times that came all too quickly. There might be little money, but there would

always be some money. In addition, the permanent fund was there to build on, to attract other donations. This happened when the Infirmary proved itself to the community of Boston.

Another reason for the survival of the Infirmary can be found in its men — its Managers and Surgeons. In the small city of Boston, Edward Reynolds and John Jeffries were known, their families for generations had been known. As men and as surgeons, they and their work knew respect. They were classed with the Christian and charitable gentlemen of the city. The same can be said for the Managers. They too were known to be Christian and charitable gentlemen. Their demonstrated business success and acumen, their common sense, could not be questioned. Their probity was above the thought of impeachment. When men of such reputations headed a charitable enterprise, gave to it their money, their time and talents, their stamp of approval, Boston in its fashion listened and believed. Thus the Massachusetts Charitable Eye and Ear Infirmary knew acceptance as a worthy and proper charity because of the men who had dedicated themselves to its welfare.

There is evidence that at an early period the Infirmary and its staff knew acceptance from the medical community, as well as from the general community. Nowhere in the records of the times can there be found any indication of rivalry between the Infirmary and the city's other charity health care facilities, the Massachusetts General Hospital and the Boston Dispensary. Quite the contrary, in 1828 both Reynolds and Jeffries were offered posts on the surgical staff of the Massachusetts General Hospital. In later years, both served on the consulting staffs of the two institutions. The cooperation of the three institutions is also demonstrated by the composition of the Infirmary's Board of Managers. During the first ten years of the Infirmary, there were 30 different men on its Board. Thirteen of these men also served on the Board of Trustees of the Massachusetts General Hospital. Edward Tuckerman, while serving as the Infirmary's first President, also served as President of the Boston Dispensary, 1827–28 and 1830–38. In the last months of 1835, he resigned his presidency of the Infirmary to, in time, become the President of the Massachusetts General Hospital.

The experiences the Managers gained by serving on the Boards of the other two hospitals were put to good use when they assumed the responsibilities of the Infirmary, wrote its by-laws, and took over its management. What they had learned to be strong and workable, they put to use. What was known to be cumbersome and weak, they ignored. An example: During its early years, the

Infirmary operated much as did the Boston Dispensary. The sick-poor who were ambulatory were seen in the Infirmary's rooms; those who were bed-fast were seen in their homes. The service of the Surgeons and all medicines were free of charge. However, the Infirmary did not use the Dispensary's subscriber-patient ticket system. Instead, they used the Massachusetts General Hospital system of relying on the judgment of the Surgeons and a later review by the Trustees. Both the Dispensary and the Massachusetts General Hospital had succeeded with all controls and all decisions, other than medical, being in the hands of strong boards of trustees. The Infirmary's Managers did not hesitate to follow this proven example.

The Infirmary could not have succeeded had it not been for the attitude its patients held toward it: "There had never been any advertisement, or public notice of the existence of the Infirmary, but those patients who had been cured sent others, and thus the number of applicants had increased." By 1838 about 55 new patients a month were presenting themselves for treatment. Inspectors for the State Committee on Public Charities wrote of those who had been hospitalized:

> *The patients appeared to be comfortably provided for, humanely treated, grateful for the attention bestowed upon them. There were those present of all ages, — from childhood to extreme age, — and in every stage of disease; the convalescents rejoicing in the prospect of speedy cure, and those suffering with severity, confiding in the efficacy of the remedies used, and entertaining the hope of final recovery.*

These then are the reasons the Massachusetts Charitable Eye and Ear Infirmary remained firm and grew during its early trying years: A small permament fund that grew; general community acceptance and medical community cooperation; men of high quality devoted to its welfare; a strong Board of Managers able to profit from example and experience; and the faith its patients had in the treatment offered.

Much of this is summarized in a report written by the Managers in 1837, when the news of the grant from the Commonwealth was made known:

. . . greatly pleased with the kind favor bestowed upon the Infirmary and also highly gratified by the fact that the investigation which they have so long and so ardently desired has resulted in so full and happy an expression of the public conviction of the high merits of this charity; proving the correctness of the opinion so frequently expressed, that it needed only to be known to be fully appreciated.

This chapter began with words from Edward Reynolds, M.D. It is fitting that it should be concluded with words from his friend and Infirmary associate, John Jeffries, M.D. In 1838 it was Jeffries's duty to prepare a progress report on the Infirmary for the state's Committee on Public Charitable Institutions. The report was eleven pages long. His last words were: ". . . we have no hesitation in expressing our confident opinion, that the charity of the state has been well bestowed; and we trust it will appear to have been faithfully administered, as it is gratefully received."

The Committee replied: ". . . the bounty of the Commonwealth was well bestowed, in aiding this institution, and they believe it has been judiciously and humanely administrated. From the high character and philanthropy of those concerned in its government, and skill, science, and professional eminence of the gentlemen engaged in its superintendence and interested in its success, the public have the best assurances that it will continue to deserve their approbation, and that its high and humane objects will be accomplished."

With these words, the Infirmary was weighed in an official and impartial balance and not found wanting. The Massachusetts Charitable Eye and Ear Infirmary, its infancy and youth at an end, was ready to enter "the vigor of a useful manhood."

★ 2 ★

The Years in the House on Green Street 1839–50

A Look at the Records

I

Up to this point, the story of the Infirmary and of those "who watched its feeble infancy with paternal care" has been both easy and difficult to narrate — easy and difficult for the same reason: There are so few original documents remaining. What is available are copies of a few reports and appeals, some public papers, the reminiscences of Edward Reynolds, and the Minutes of the Meetings of the Board of Managers.

The years in the house on Green Street, 1839–50, are richer in documents. In addition to the usual annual reports and appeals, the ledgers of the "Records of Operations," "House Cases," and "Register of Patients" are preserved. There is also a "Cash Book" for recording all financial transactions. And once again, the all important Minutes of the Meetings of the Board of Managers remain.

The task of entering the minutes of the Managers' meetings in the ledger was that of the Secretary. The first man to hold that office was William B. Reynolds. (His relationship, if any, to Edward Reynolds is not known.) He held office until 1834, when he was succeeded by Samuel A. Walley, Jr. Walley's term lasted until 1837, when Frank George Shaw took over. In 1841 Frank George Shaw gave way to George Howland Shaw, son of the President, Robert Gould Shaw.

Of the four men, William Reynolds wrote the best hand and kept the most informative minutes. The two Shaws all too often were satisfied with recording the vote of appointments, motion votes, the highlights of the meetings, and little else. Had they seen fit to record more than they did, greater understanding of a major crisis at the Infirmary would be ours. What they did put into the record is reproduced below in narrative form.

Like many governing bodies, the Infirmary's Board of Managers rarely allowed a meeting to pass without appointing a committee for some purpose or the other. True to form, at the annual meeting of October 31, 1839, they appointed a committee charged with the important task of rewriting the by-laws. With one major change that had involved the composition of the Surgical Staff, the by-laws adopted at the first meeting in 1827 had served the institution's purposes. Now there were those who thought it was time to over-

Bowdoin Square in the 1830s. The Gore mansion, the Green Street House of the Infirmary, is the third structure up on the right.

haul the structure. The members of the new by-laws committee were Solomon Davis Townsend, M.D., George E. Head, and, most important to an understanding of what should later happen, John Jeffries, M.D., cofounder, appointed Surgeon, and Ex Officio Manager. At an adjourned meeting of the Subscribers on February 10, 1840, the new by-laws as prepared by this committee were approved.

In most areas, the new by-laws were little more than a streamlined version of the original code. The qualification to become a Life Subscriber was changed from a $40 donation to one of $50. The new Board was to consist of twelve Managers, the Treasurer, and the Secretary who were to be elected each year by and from the Corporation of Subscribers. The Managers could fill any interim vacancy and would hold regular quarterly meetings. At their Annual Meeting, they would choose their President and the Corporation President. Further, at the same meeting: "They shall appoint two or more Surgeons and such Assistant Surgeons as they shall judge the interest of the Institution may require who shall hold their respective offices subject to removal by the Managers."

Subsequent articles read that: "One or more of the Surgeons shall attend at the House one hour every day except Sunday to attend such persons as may apply as out-patients and they shall attend daily upon the house patients. They shall have the power to receive into the House any patients who, in their judgement, are fit objects for the Charity." Each year the Surgeons were required to report to the Subscribers on the general state of the hospital and to submit a table of the diseases treated and the results of the clinical activities. As for the Assistant Surgeons, they ". . . shall perform such medical and surgical duties as shall be assigned them by the Surgeons."

Absent from the new by-laws was one very important passage that had been in the original by-laws. It read: "The Surgeons of the Infirmary shall be Ex-Officio Managers of the Infirmary." When this passage was written, only weeks had passed since Edward Reynolds and John Jeffries had turned over their private charity, the Boston Eye Infirmary, to the "fostering care and benevolence" of the newly established Massachusetts Charitable Eye and Ear Infirmary. Then it seemed only proper that these men should be appointed the first Surgeons and that they should also have a voice in the enterprise's operations by being ex officio members of the governing board. This was unique in Boston. The other two health care facilities in the city, the Boston Dispensary and the Massachusetts General Hospital, did not allow their surgeons and physicians, regardless of their prestige, to sit in any capacity on their boards. Their staff appointments were made annually and the staff "held office during good behavior," and the Boards of Trustees determined what constituted good behavior.

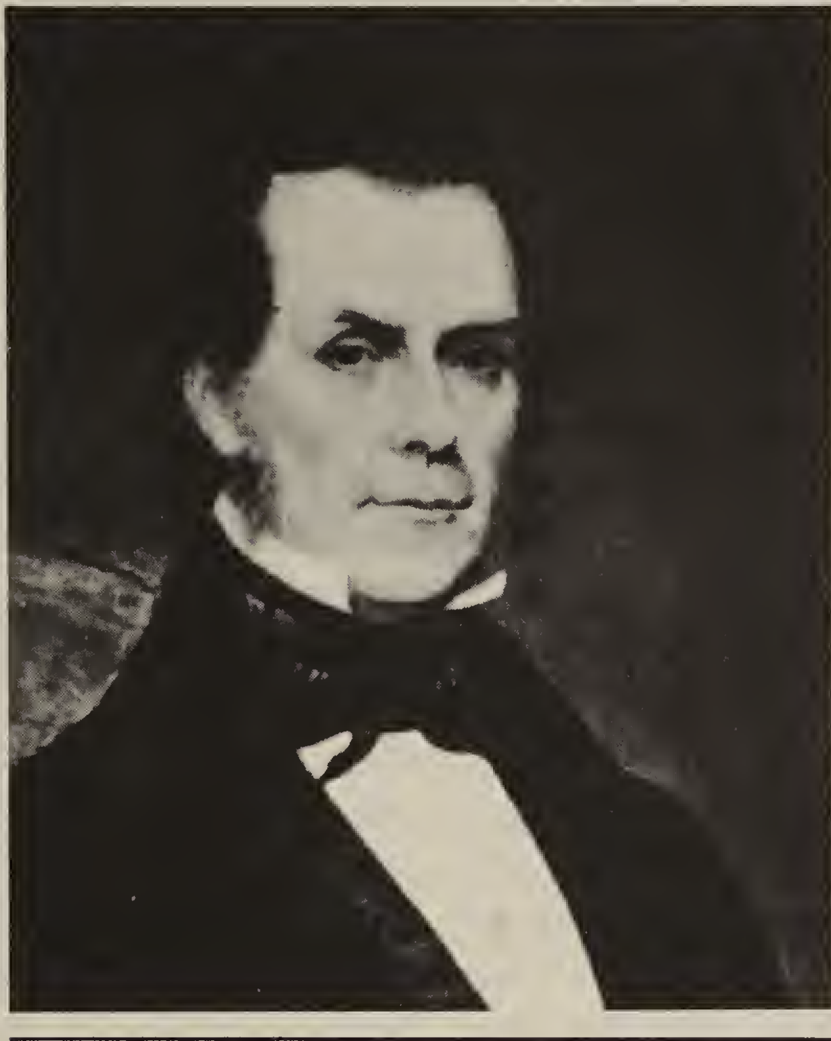
At this point, the actions of the Infirmary's Board of Managers and Subscribers become contradictory and hard to understand. The new by-laws, approved by these bodies, had put an end to the Ex-Officio Manager status of Surgeons Reynolds and Jeffries; but at the meeting when the new by-laws became effective, the same groups elected Edward Reynolds and John Jeffries as regular members of the Board of Managers. At the following quarterly meeting, Reynolds and Jeffries, present as Managers, participated in their own appointments as Surgeons for the coming year. At the same meeting, Dr. Jeffries was asked to write a history of the Infirmary to be a part of the printed copy of the new by-laws. He was also elected a member of the Standing Committee, a committee that "shall have the general care and direction of the Infirmary and shall give such orders and establish such regulations as they shall think proper . . ."

Later that year at one of their Board meetings, with Reynolds and Jeffries present and again participating, the Managers voted that the number of Assistant Surgeons should be two. A committee was appointed to report the names of six candidates from whom the two Assistants would be selected. It was later voted that the Assistant Surgeons should be appointed annually and that they should not retain office beyond a period of two years.

With this vote in mind, it is difficult to understand the Board's next action. Again Surgeons Reynolds and Jeffries, as elected Managers, participated. At that time, there were three Assistant Surgeons, all having been appointed to their post four years earlier in 1836. They were Robert W. Hooper, M.D., George A. Bethune, M.D., and John Homer Dix, M.D. The Board unanimously appointed Hooper and Bethune to be Assistant Surgeons. They sent Dix a letter of thanks for his four years of attendance and faithful service. Later he went on to open a private practice as a full-time specialist in ophthalmology and otology, the first U.S. doctor of high professional standing to do so. By not making some provision on the staff for Dix, the Board lost for the Infirmary the services of one of the most imaginative young doctors of the city.

When the Subscribers held their 1841 annual meeting, Reynolds and Jeffries were re-elected to the twelve-man Board of Managers. When the Board itself held its annual meeting, Reynolds and Jeffries were present and participated; and Reynolds and Jeffries were re-appointed Surgeons for another year. Hooper and Bethune were named Assistant Surgeons for a second year. The following year, in 1842, Reynolds and Jeffries were again elected Managers and they again participated in their own re-appointments as Surgeons. Jeffries was made sole member of the all-important Standing Committee. In keeping with the earlier two-year rule, Bethune and Hooper were not re-appointed Assistant Surgeons. They had served four years under the old rules and two years under the new rules. For this they received a letter of thanks from the Secretary. To fill the vacant posts, Surgeons Reynolds and Jeffries reported the names of several young doctors for consideration. The Board unanimously selected Drs. Samuel Parkman and S. L. Abbott as Assistant Surgeons for the ensuing year.

Three weeks later, it was necessary for the Board of Managers to hold a special meeting. Murphy's law had taken over — everything that could go wrong had gone wrong. First, Drs. Parkman and Abbott had declined their appointments. Next, Bethune and Hooper felt unhappy about not being appointed to some post on



John Jeffries, M.D. (1796–1876).
Co-founder of the Infirmary.

the staff they had served on for six years. The Secretary in his letter had thanked them for their long and valued service and had explained that in making new appointments the Managers had "been solely actuated by a desire to disseminate as widely as possible the knowledge of that branch of medical science to which the Institution was devoted. It was the desire to accomplish this important object that the Board had passed a vote limiting the term of Assistant Surgeons to two years." Hooper and Bethune were not quite mollified by this.

The last bomb to be left ticking on the table was a letter from John Jeffries, resigning his office as Manager of the Institution. No copy of that letter has survived, so we cannot know why Jeffries took this action. In the Minutes, we do read that his long-time colleague, Edward Reynolds, who was present as a Manager at the meeting, was moved to "remark upon the expediency of the Surgeons of the Institution being ineligible as Managers."

A committee was appointed to take into consideration the subject of the appointment of Assistant Surgeons, the tabled resignation of Jeffries as Manager, Reynolds's thoughts on Surgeons being

Managers, and the unhappiness of Hooper and Bethune. With that done, the Board adjourned *sine die*.

It took the committee almost a month to try to please everyone. First, they recognized that it could be difficult for a man to be both a Manager and a Surgeon, so they recommended accepting the resignations of Reynolds and Jeffries as Managers. Next, they had no solution for the problem of the Assistant Surgeons. As for the unhappiness of Hooper and Bethune, their answer was to name the men full Surgeons. The Board agreed, accepted the resignations, and went on to appoint Edward Reynolds, M.D., John Jeffries, M.D., Robert W. Hooper, M.D., and George A. Bethune, M.D., to be Surgeons of the Massachusetts Eye and Ear Infirmary for the ensuing year. The four men were to be equals in power and duties.

In anyone thought this was a solution to the Surgical Staff problems of the Infirmary, they were mistaken. Four days later — December 27, 1842 — the Board received a letter from John Jeffries in which he resigned from his post as Surgeon of the institution he had helped to found. A copy of this letter has come down to us. In the language of the time, Jeffries wrote, in part:

> *It has appeared to me to present a favorable opportunity to retire from the Infirmary. After mature deliberation, and not without many painful regrets in separating from an Institution of which I was one of the Founders, and whose prosperity has occupied for 18 years my solicitude and exertion, and with which I have by your repeated indulgence been so long professionally connected; I have concluded respectfully to decline the renewal of your confidence.*

In like language the Board voted:

> *Be it entered* large *upon the records . . . that the thanks of the Managers be presented to John Jeffries, M.D., one of the original Founders and for the past 18 years a Surgeon of the Institution, for his unceasing efforts for the promotion of its usefulness and prosperity, and their deep regrets that his professional duties require his retirement from the Institution.*

The Secretary was requested to communicate the vote to Dr. John Jeffries. With that done, the Board went on to consider a letter from one of the newly appointed Surgeons, Dr. G. A. Bethune,

relative to the introduction of aqueduct water and bathing apparatus for the use of the Infirmary.

This is all that the Minutes of the Managers Meetings tell us of the ending of John Jeffries's association with the Massachusetts Charitable Eye and Ear Infirmary. There are no other records of the affair. It is safe to assume that he continued to ". . . cherish for its prosperity the most earnest wishes and endeavored to promote its interests." The name of Jeffries disappears from the hospital records until 1867 when Benjamin Joy Jeffries, son of John, was named Surgeon of the Infirmary.

Following John Jeffries's resignation as Surgeon, the Managers allowed the number of Surgeons to remain at three — Edward Reynolds, George A. Bethune, and Robert W. Hooper. These three men comprised the Surgical Staff until 1850, when the first Assistant to the Surgeons was appointed. In 1853 the philosophy that a Surgeon should not also be a Manager was set aside when Edward Reynolds was elected a Manager. He held the post until he resigned in 1871. His term of service to the Infirmary totaled 47 years.

II

The Secretaries had one ledger for the Minutes of the Meetings of the Board of Managers. The Surgeons had four ledgers to record their clinical and surgical activities in the Infirmary. The first of these ledgers, purchased soon after the Infirmary moved to the house on Green Street, was a Register of House Patients. Entered in this ledger were the patients' names, date of entering, date of leaving, and whether they were free patients or paying patients. The first name is that of the already mentioned Richard Blood. He entered the house as a free patient on July 19, 1837, and left six days later on July 25. The ledger ends on October 18, 1852, with the name of free patient Mary Barry. Her number was 1,925. A little arithmetic shows that for the 15 years covered by the ledger, an average of 128 patients a year were admitted to the house. There are no figures for the number treated as outpatients.

Detailed information on the house patients is found on the ledgers containing the Record of Operations and House Cases. The first ledgers of House cases were those kept by Robert W. Hooper, M.D., of the Infirmary cases he treated. It must be commented that Dr. Hooper was an atrocious penman, but an apt doodler. The section title pages of his ledgers are coverd with delightful doodles of squirrels, bats, sailing ships, imaginary foliage, and objects and

animals that defy identification. Hooper's ledgers end with 1843, when the Infirmary's ledgers take over. From them the two-year period of October 28, 1845, to October 19, 1847, has been selected for close scrutiny.

At that time, there were beds for 20 patients in the house on Green Street. During the two-year period, 273 patients were admitted. The youngest was a 3 1/2-year-old boy; the oldest, a 76-year-old man. Males outnumbered females by almost two to one. The length of stay could be as short as one day or as long as the ten months known by a child suffering from ectropion and chronic corneitis. However, the average stay was about six weeks. The number of patients at any one time could vary from as few as seven to as many as 24. The majority came from Massachusetts — 83 from Boston and 122 from other cities and towns of the Commonwealth. Forty-eight came from the rest of New England, with Maine leading with 27 patients. The Maritime Provinces of Canada sent seven patients, and eight came from other countries.

When it was time to discharge a patient, the Surgeons used a code of their own to describe the patient's condition. It read: Improved — Much Improved — Recovered — Not Improved — Not Treated — Eloped. Seventy-five percent of the discharged patients fell into the first three categories.

From time to time in their records, the Surgeons made personal comments about their patients. These comments reveal in a graphic way the social and economic state of the patients. In reading them it is well to remember that the Infirmary was a charity hospital. No one but the very poorest were admitted.

Patient is a poor miserable, scrofulous bastard child.

Has been in this country two months. Came thinking to better herself, but has had no occupation since her arrival.

The child came here in a miserable condition. Is an orphan living with an aunt. Came here without a change of clothing and her head covered with lice.

Has been in the state prison and has been transferred from that place to this on the expiration of his term.

Colored seaman — shot in right eye by Captain Caddy two years ago during a mutiny on the ship Clarissa Andrews *going from Mobile to Havre. He had been laid up during the whole voyage.*

Did not return to duty. [Note: only black patient treated during the period.]

Patient a little flibberty gibbet.

This patient proved to be a "bad actor." Robbed one of his blind companions of nearly $20.00. His departure brought on inflammation in his eyes again. Fled the country on being accused of the theft.

A strumous boy. His grandfather has been discharged within a few months and his mother is now a patient.

Patient behaved improperly by introducing an improper book into the house. Discharged. Afterwards returned and had continued as an outpatient.

The individual case records were often brief, little more than half-a-page column in length. The date was given, the patient's name, age, occupation, place of residence, and diagnosis listed. This was followed by a resumé of the examination and of the treatment given. The record closed with patient's condition upon being discharged. The record of one case, because of its unique nature, is reproduced here in its entirety.

March 18, 1846
William Carney *Irish*
Slave Driver *Carysport Is., Georgia*
Amaurosis
Patient had had affection of the eyes for eighteen months. Is rather an irregular character. Has been under various physicians and had various remedies.
March 21. Took him in the house for a short time to watch the case. He says his vision had improved. Treatment has been expectant. He can see to go about. Thinks he can find some business if he could get back to the South. Gave him a letter Calvin Baily and Discharged *him.*

Improved.

The patients' records show that more than 50 percent of them suffered from some inflammatory condition of the conjunctiva, which tended to readily spread over the limbus and invade the cornea. There was case after case of chronic ophthalmia, catarrhal ophthalmia, pustular ophthalmia, purulent ophthalmia, chronic

corneitis, pustular corneitis, corneal ulcers, and corneal opacities. It was the belief of the time that the various ophthalmias were caused by atmospheric vicissitudes, exposure to night air and cold, and that they often came as epidemics. In those pre-antibiotic days, the treatment of the purulent ophthalmias was a prolonged and often losing battle, resulting in permanently damaged or perforated eyes. Such success as might be expected came from "the judicious and discriminating use of the means they possessed, a few well-appreciated remedies, rather than from the invention of novel modes of treatment."

One such topical remedy — one regarded almost as a panacea — was yellow-oxide of mercury, or "Golden Eye Ointment." Others were calomel applied as a powder to the cornea and conjunctiva, copper sulphate or "blue stone," lead acetate, silver nitrate, alum, and tutty. The tonic medicines were tincture of cinchona, carbonate of iron, and valerian. To counteract pain, there was wine of opium and laudanum. Belladonna and stramonium were used to dilate the pupil. Add to this the usual purgatives, diuretics, and laxatives common to the time. Of a gentler nature were the poultices of hops or camomile flowers and warm fomentations. And always there was the lancet, the cup, and the leech when bleeding was indicated, which was frequent.

In using these drugs and procedures in the proper fashion, the Infirmary Surgeons were doing exactly what ophthalmologists throughout the western world were doing. Nothing else was available. The patients endured it, and a surprising number of them knew something of a cure.

Nowhere in the diagnoses made in those years at the Infirmary can the word glaucoma be found. The entity had been delineated with a degree of clarity by Mackenzie in 1836, but there were those in the United States and England who would not admit to its existence, terming it another of those "German diseases." It is not known if the Infirmary Staff was of this mind. Also absent from the list, and this time with good reason, are any of the diseases peculiar to the retina. Reynolds, Hooper, and Bethune could not study the retina; they lacked the proper instrument. They and everyone else would have to wait until 1850, when Helmholtz would introduce his ophthalmoscope. It can be guessed that some of the 24 cases diagnosed at the Infirmary as amaurosis were in reality diseases of the retina.

One hundred forty cases during the two-year period required surgery. About half of these were done on house patients, the rest

on outpatients in the clinic. It is rather surprising to read that five of the seven strabismus cases were done on an outpatient basis as were nine of the 37 cataract cases and two of the five congenital cataract cases. In addition to these procedures, the Surgeons removed eyeballs; treated lachrymal obstructions, lid warts, lid tumors, and staphylomas; corrected entropium and ectropium; and formed artificial pupils. In the area of oto-laryngology there were eight surgical cases. Five of these were for the removal of tonsils, all done on outpatients. In one case, only the right tonsil was removed: It was then believed that in some cases the removal of tonsils could improve hearing.

The cataract operation was the "capital" operation of ophthalmology. In keeping with the thinking of many of their countrymen, the Infirmary Surgeons preferred the operation by absorption. The principle on which the procedure was founded was the removal of the cataractous lens by the agency of the aqueous humor admitted through an opening in the lens capsule, or by breaking up the lens and allowing the fragments to remain in the anterior chamber until they were dissolved. A few cases were treated by depression or reclination. Here the lens was dislodged by a needle knife from its natural position and forced into the bottom of the vitreous cavity where, in successful cases, it would remain. As for extraction, these words could have been written by the Infirmary Surgeons: "Though much has been justly said in favor of the operation by extraction, there are reasons which will ever prevent it from being reproduced by a great body of the profession. The object can generally be better and more safely attained by different methods." The Infirmary Surgeons rarely attempted to extract the cataractous lens. When they did, the result was often disastrous. If a cataract patient was operated on in the house, his stay would average five to six weeks. One problem case stayed in the house ten months.

Edward Reynolds, Senior Surgeon, did only three of the 140 surgical cases. Hooper and Bethune shared the rest equally.

Medical and surgical care to the house patients and to the outpatients of the Infirmary from October 28, 1845, to October 19, 1847 — that is to meet the payroll, the cost of food, fuel, medicine, and incidentals — cost just under $2,400 a year. The Commonwealth provided $2,000. A fraction of the remainder came from the paying patients and the rest from the income of the invested funds of the Infirmary. Of course, the Surgeons made no charge for their services. The only salaried employees were the matron, the cook, and one domestic. The number of patients each year,

both house and clinic patients, was somewhat less than 2,000. Thus the cost for each patient was about $1.20.

III

On October 16, 1846, William Thomas Green Morton gave at the Massachusetts General Hospital the first public demonstration of the anesthetic properties of ether. Within days of that event John Homer Dix, M.D., former Assistant Surgeon of the Infirmary, performed in his private surgery the first eye operation under ether. On May 12, 1847, ether was used for the first time at the Infirmary. The case was the removal of a pterygium, which was "rendered nearly painless by the administration of ether by sponge." The following week the same patient's eye was extirpated because of a cancerous tumor of the orbit. Of the case Dr. Bethune wrote: "The operation was done under the influence of ether which though it seemed to cause great distress rendered the patient insensible to the pain of the operation. The ether was administered in the first instance with the sponge; but after inhalation for fifteen or twenty minutes insensibility not occurring, but in its place an hysterical state, the tube was substituted, and complete unconsciousness was produced, which continued during the operation."

The records show that in 1847, the first full year of the knowledge of ether, there were 83 operations performed at the Infirmary; 11 of them were done under the influence of ether. One of these was the already mentioned case of pterygium, one for lachyrmal obstruction, four for removal of eyeballs, two staphylomas, one entropion, and two lid tumors.

With these cases, the Infirmary Surgeons met problems common in the early days of anesthesia. Their patients were unwilling to cooperate because of the fear of what was new and unknown. For them the fear of pain was less than the fear of losing their identity and consciousness for even a short period of time. The Surgeons were beset by doubts because they did not understand the action of ether and the stages and planes of anesthesia. They did not have the equipment to correctly administer the drug. The clumsy inhalator of Morton was an unreliable device, and the sponge was almost too simple to use with confidence. In addition, there was the problem of the chemical purity of the ether. If the advertisements in the medical journals of the time are to be taken as fact, then the market was flooded with spurious and adulterated products. In spite of all of this, the Surgeons knew a fair degree of

success with the majority of their cases. Bethune wrote of his experiences in the *Boston Medical and Surgical Journal* and gave qualified approval to the use of ether in ophthalmic surgery. Ether and later chloroform, because of frequent side effects, never became popular with ophthalmologists. With the exception of such painful procedures as enucleation of the eye, many eye surgeons preferred to do their work without having recourse to any anesthesia. The introduction of cocaine as a local anesthetic in 1884 changed this.

One last note on anesthesia at the Infirmary. On May 5, 1857, the Board of Managers voted: "That the Secretary of this Board be authorized to subscribe on behalf of the Mass. Charitable Eye & Ear Infirmary — Two Hundred dollars toward the fund raised for the benefit of Doctor W. T. G. Morton — As a recognition of the greatest discovery of modern times, and an acknowledgement of the great service which that gentleman has rendered to science & to humanity by the discovery of the uses of Ether."

IV

When the Infirmary acquired the house on Green Street, it was believed that the quarters would be large enough for all future demands, that there would be adequate accommodations for the sick-poor of the city and the state, and that all diseases could know successful treatment. Time quickly proved the Managers and Surgeons to be wrong in this belief. Soon after the move, waves of emigrants inundated the city. Of the Boston charities, the Infirmary was among the first to feel the impact. Within a decade, the number of patients treated each year went from 700 to 2,000. Until 1841 the Infirmary could accommodate all persons who applied as house patients. By 1845 the number of such patients more than doubled, and by 1849 the number trebled. Jeffries's proposal that two rooms of the barn be set aside for contagious diseases was at best a stop-gap measure.

The house had been originally designed as a private dwelling. As time went by, it was found to be inconvenient in its arrangements, deficient in space for medical and domestic attendants, and lacking in the modern conveniences of water, sewerage, light, and heat. The age of the building called for frequent repairs. The crowded conditions hampered the Surgeons in their work. The house was often so crowded that patients had to leave before the Surgeons wanted them to. But most important, the institution was often forced for want of space to shut its doors upon many who sought

and needed assistance and shelter. This was contrary to the whole intent of the Infirmary and its charitable purpose. The only answer was to erect a new hospital, one designed for the peculiar needs of the Infirmary, one that "should be as permanent as the future history of the Institution might require."

In the early months of 1845, the first moves toward that end were made. The financial state of the Infirmary at the time, according to the Treasurer's Report, was:

Policies of Annuity	*$ 6,700.00*
Real Estate on Green St.	*22,149.34*
Bank Stocks	*6,851.00*
Cash	*7,679.04*
Total	*$43,379.38*

The first action of the Managers was to petition the Commonwealth for $20,000 to assist in building the new hospital. They also petitioned the City of Boston for a grant of land. The Infirmary's reputation as a public charity was good, its needs for new quarters were legitimate. This the state recognized and in time made an offer of $15,000 — $5,000 each year for three years if the Infirmary would raise $10,000 from other sources. The City of Boston did not make a grant of land, nor did it respond to an appeal for money.

When the subscription drive began, Infirmary President Robert Gould Shaw added impetus to the drive by offering to personally donate $5,000 if another $15,000 were raised in six months. Before that time expired, $21,000 was on the subscription list, including Shaw's $5,000. But this was not enough. The goal was $25,000. It took some months to reach that goal. In the meantime, the state had been making its promised payments.

Two years passed before there was enough money from all sources, before the Building Committee decided on a site and selected an architect and a builder. The land agreed upon was from the estate of Mrs. Joseph Lyman and was located on Charles Street, a little south of the West Boston Bridge. The price was $1.125 per square foot for 24,000 square feet of uplands, throwing in the tidal flats — total cost $25,160. The "talented" Mr. Edward Cabot was selected as the architect, and Mr. Jonathan Preston was named the builder. Work began in the early months of 1849.

The rapidity with which the Subscription Committee was able to raise money for the new building was proof that the Infirmary had gained a name for itself in Boston as being a worthy charity.

Additional proof of this can be found by scanning the list of bequests and legacies that came to the Infirmary. The first big bequest was the already mentioned one of William Paine for $10,000. Why additional bequests were made to the Infirmary, who made them, and their amounts has been best narrated by Edward Reynolds. He wrote:

> *The five thousand dollars, bequeathed by Mr. John Parker, was the tribute of a generous emotion for the relief of a servant to whom he was attached. The six thousand dollars, willed in the same year by Mr. Daniel Waldo, was the gift of a heart warmed by what his own eyes had seen of an institution founded on the wants of the poor. The ten thousand dollars, given by Mr. John Bromfield, treasured in long self-denial, was the gift of a poor man's friend. . . . Mrs. Benjamin Joy remembered the poor in her dying hour [$1,125]. Mr. Samuel Appleton, whose whole life has been a blessing to the poor [$2,050]. And so of the late lamented Gossler, the stranger beloved in our midst; who in his honored walk with rich, forgot not the poor [$1,000] . . . that lady, who in the evening hour, left a thousand dollars in a nameless note, at the Treasurer's door. She never permitted* us *to know or record her name; but it is written in heaven.*

All of these bequests and others came to the Infirmary between 1844 and 1850. They totaled $28,575. Add to this the $25,000 raised for the building fund, the result — an excellent showing indeed.

On May 7, 1850, the third quarterly meeting of the Managers was held at the house on Green Street. President Shaw was in the chair. Six of the 12 Managers were present. The order of business called for the reports of two committees. The first committee told of its success in obtaining an additional $5,000 from the state for the new building. This brought the total from the Commonwealth to $20,000. The next committee to report was the Building Committee. They had nearly accomplished their work, as the building was fitted for occupancy. In meeting their charge, they had regarded durability to be the chief consideration. The contract with the builder, Mr. Preston, was $26,972.50. Additional money had been spent for fencing, filling, grading, wharfing, piling, excavation, and stonework. The cost of the architect and the finishing of the building was $11,000. This brought the total to about $38,000. The furniture would cost $1,500. In round numbers the cost of the land, the building, and the furnishings would be about $65,000. In time a seawall along the Charles River would have to be con-

The House on Charles Street — 1850.

structed. This would add an estimated $2,000 to the costs. The reports were accepted with thanks.

The Board went on to vote to sell the Green Street property and to authorize the Surgeons to transfer the patients to the new Infirmary at any time during the month that might seem expedient. Over five years had passed since the idea of a new building had been broached.

Feeling proud of their new building, the Managers commissioned an artist to make an engraving of the structure. His work showed a severe yet handsome building set well back from the street. The sidewalk was lined with newly planted trees. Wrought iron fences and a stone wall surrounded the property. An iron arch bearing a lamp rose above the front gate. There was an air of majesty to the front entrance, which was bounded by pillars and approached by broad stone stairs. The brick face of the main structure, which was two stories high, was dressed with stone at the windows and cornices in the Italian style. The face of two wings, which were set back from the main structure, were plain. Two ornate chimneys rose above the flat roof. Beyond the building could be seen the sails of a boat on the Charles. The building was by far the finest in the neighborhood.

The new Infirmary was designed as a self-contained unit. The basement had the two furnaces, fuel bins, and boilers, as well as the pantries, storerooms, laundry, and kitchen. A portion of the backyard was a drying area for the laundry. The main floor had a formal parlor for meetings, living quarters for the matron, reception area for patients, clinics, examining and treatment rooms, and a surgery. The second floor was divided into wards for the patients and sleeping quarters for the domestics. There were internal water closets and running water with a sewerage system that allowed for disposal into the Charles River. The entire interior was lighted by gas. Thirty patients could be accommodated. The Managers allotted the beds as follows: Males — twelve free, six paying; Females — eight free, four paying. The cost for a paying patient was to be $3 a week.

The formal dedication of the building took place at 9 o'clock in the morning of July 3, 1850. The scripture was read by the Rev. Mr. Sharp and prayers were said by Dr. Lowell. Edward Reynolds, "whose arm had not (*sic*) been broken by a railroad accident a few days earlier," gave the main address. Standing 6 feet 4 inches and weighing close to 300 pounds, Reynolds was a man of imposing and genial mein, the perfect example of the medical gentleman of his generation. He began: "We are assembled in this beautiful structure erected by the wisdom and persevering energy of the Managers of the Massachusetts Charitable Eye Infirmary. We have invited its friends to enter with us, and to dedicate it by some appropriate services to its benevolence." With rotund and rolling words and phrases to match these he went on for 33 printed pages to outline the development of ophthalmology and infirmaries in general and the Massachusetts Infirmary in particular. In paying tribute and giving thanks to those who made the Infirmary, he forgot no one, not even the one whose "cup of cold water was given in kindness."

He must have impressed his audience, for immediately after the ceremonies the Managers met in special session and ordered the publication of the address. The Address of Reynolds has served as a major source for historians interested in the development of ophthalmology in the United States in the early years of the nineteenth century. Generous use of it has been made in this study. However, its great value is lessened because of the number of small errors of fact that Reynolds allowed in his manuscript.

When the Subscribers met for their Annual Meeting in October 1850, their Treasurer was able to report to them as follows:

Policies of Annuity	*$ 6,700.00*
Real Estate on Green Street	*22,149.34*
Real Estate on Charles Street	*25,156.00*
New Building	*39,355.30*
Cash	*8,473.69*
Furnishing, New Building	*2,336.18*
Total	*$104,170.51*

Twenty-three years earlier, in 1827, the Massachusetts Charitable Eye and Ear Infirmary had been an idea, a desire, and $2,700. Now it had a value of $104,170.51. There was truth in the opening sentence of Reynolds's dedicatory address. The Infirmary, its building, and its firm financial position in 1850 were products of the Managers' "wisdom and perserving energy." The brick, the mortar, and the money were there to prove it. As for the work of the Surgeons and the Assistant Surgeons — Reynolds, Jeffries, Hooper, Bethune, and Dix — again to use Reynolds's words: ". . . there was the gratitude of thousands who had been soothed by their kindness and relieved by their skill." In spite of all that had been accomplished, Reynolds did not see that the Infirmary and its friends had any reason to congratulate themselves or feel complacent. True, the Institution did hold an elevated position with an increased capacity of doing good, but those very things made it poorer than it had ever been. Why? Because it still needed the support of the charity-minded of Boston to do its work. In the years to come this should not be forgotten. In full faith he commended the Infirmary to the public's continued support and care.

★ 3 ★

The 1850s and the 1860s

The Surgeons and Their Appointments

In the audience that Reynolds addressed at the dedication of the new house on July 3, 1850, were the twelve Managers of the Infirmary. Two of the men, President Robert G. Shaw and Manager Henry Rice had been on the Board since it had been formed in 1827. Also present must have been George Amory Bethune, M.D., and Robert William Hooper, M.D., who, with Reynolds, made up the Infirmary's 1850 Board of Surgeons.

Hooper and Bethune were typical of a certain class of Boston gentlemen of the time. Bethune, descended from an old Huguenot family, lived all of his life in the family home on Tremont Street. He attended Harvard College, then Harvard Medical School, taking his M.D. degree in 1834. For two years he studied in the medical centers of London and Paris, giving some attention to diseases of the eye and ear. Returning to Boston, he accepted an appointment at the Infirmary as Assistant Surgeon in 1836. In 1842 he was made a full Surgeon.

Bethune was a man of ample means. He never had, nor did he ever seek a large practice, preferring to use his skills in charity institutions, such as the Infirmary and the Boston Dispensary. He was a clubman, an accomplished equestrian, a collector of rare books, art, and silver. One who knew him wrote: ". . . a notable figure in our streets and in the social and club life. . . . A stocky, firmly knit figure, in clothes of the English style, always followed by two dogs, he moved about with a preoccupied air and kept close to the routine that habit had made a second nature to him." Part of his routine was his conscientious attendance to his duties at the Infirmary.

Bethune was the first Infirmary Surgeon to make significant contributions to the literature of ophthalmology. One-half of his 22 publications were on tumors of the eye and orbit. That he had a sense of humor is demonstrated in a delightful paper he wrote on how a sudden attack of eczema in a particular and personal place put an end for some weeks to his practice of horseback riding.

Bethune's fellow Surgeon, Robert W. Hooper, was also of old New England stock, also a product of Harvard College, Harvard

Medical School, and a tour of study in Europe. Like Bethune, Hooper was a man of inherited and acquired wealth. His private practice was small, never yielding too much income. Again, like Bethune, he gave much of his medical skills to the Infirmary and Boston Dispensary. For thirty years he was a trustee of the Boston Athenaeum, and for twenty-seven years he was a trustee of the State Hospital for the Insane at Worcester. And again, like Bethune, by virtue of his family and wealth, he was prominent in the club and social life of Boston. He also collected art and books. In only one important area were the lives of these two men different: Hooper married and had three children, Bethune never married.

Hooper, Bethune, and Reynolds — and many of the Infirmary's Board of Managers — were men of deep religious convictions. They had shed much of the old Calvinist doctrine that explained a man's social position and wealth in terms of predestination. Instead, they saw themselves as being members of a small group that had especially benefitted from God's bounty. With this had come an obligation to succor society's less fortunate members. To be rich and idle was not in keeping with their theology. Work was essential, and the best work was that done for the benefit of others. Men of Hooper's and Bethune's fortunate group became preachers, teachers, writers, public servants, and doctors, all occupations undertaken with a sense of obligation to God and society.

During the first decades of the Infirmary's history, the only record of possible dissatisfaction or unhappiness between the Surgeons and the Managers was the inadequately explained resignation of John Jeffries, M.D. The Surgeons and the Managers knew one another; they moved in the same small social circles of Boston. They went to the same churches, and, in the early days, they prayed together. When the Managers wrote the rule that "one or more of the Surgeons shall attend at the house of the Infirmary one hour each day except Sunday to attend such persons as may apply as out-patients and they shall attend daily upon the house patients," there was no question that the rule would be followed, that the Infirmary's clinical affairs would be dealt with in the proper fashion and that economies would be observed. The Surgeons and the Managers understood one another. They were Boston Christian gentlemen speaking to Boston Christian gentlemen.

In addition to being Surgeons, Hooper, Bethune, and Reynolds were by virtue of their donations members of the Infirmary's Corporation of Subscribers. This meant they could attend the Annual Meetings, take part in the business, be elected to *pro-tempore* offices,

and accept committee assignments. For several years the Corporation charged Hooper with the task of seeing to the publication in local newspapers of an abridged Annual Report. And for several years he read the Surgeon's Report to the Subscribers. In 1853 Reynolds was elected to the Board of Managers, and the two bodies moved closer together.

When the Infirmary moved into its new 30-bed home in 1850, the Surgical Staff was increased by the Managers appointing one Assistant to the Surgeons at a salary of $100 a year. It was this man's task to be present at the clinic every day, to assist the Surgeons in their work, and in the absence of the Surgeon of the day, to serve as a substitute Surgeon. He was required to submit to the Board of Managers a quarterly report of the clinical activities and of the population of the house. The young men chosen were all recent graduates of Harvard Medical School. The first of their number to serve for any length of time was John Cauldwell Sharp, M.D. He was appointed in 1851 and resigned in 1858, when he was appointed Surgeon to take the place of Edward Reynolds, who had resigned to become Consulting Surgeon. Sharp held the post of Surgeon for a few months. When he left, he was succeeded by Algernon Coolidge, Sr., M.D., who had succeeded him as Assistant Surgeon. The Assistant Surgeonship passed to Gustavus Hay, M.D. Three years later, Hay took a leave of absence to study in Europe and the apppointment went to Henry Lyman Shaw, M.D. At the outbreak of the Civil War, the Surgical Staff of the Infirmary was: Consulting Surgeon — Edward Reynolds, M.D.; Surgeons — Robert W. Hooper, M.D., George A. Bethune, M.D., and Algernon Coolidge, Sr., M.D.; Assistant to the Surgeons — Henry L. Shaw, M.D. When the war was not quite two years old, the ranks were broken by the resignation of Coolidge to join the Union Army as a Surgeon.

The Civil War accelerated the tides of change that were moving in American medicine. To their credit, the Managers were aware of this. On January 1, 1863, they held one of the most important meetings in their history. They met in the Counting Room of Messrs. A. & A. Lawrence, Co., 52 Milk Street. The first order of business was to hear a report from a committee composed of President Solomon Davis Townsend, M.D., and Secretary James Lawrence. The two men felt that the large and increasing number of patients applying for relief and shelter at the Infirmary was sufficient to occupy the time and attention of at least four Surgeons. They went on to suggest that ". . . the continual improvements

in the arts of surgery and medicine, especially as applied to the eye and the ear, made it essential to avail of the very best methods for relief and cure, and that consequently, in the appointment of Surgeons, it was desireable that selection be made from those of the profession who had made the study of these branches their special care, and had had the most recent opportunities of acquiring knowledge and skill in European schools."

The report was unanimously adopted by the Board. They then went on to appoint as Surgeons to the Infirmary, Hasket Derby, M.D., and Gustavus Hay, M.D., two men who met the new requirements. With this vote and these appointments, the Managers wholeheartedly placed themselves in favor of specialization in medicine. Never again would they appoint to the Surgical Staff a man who had not known some special training in ophthalmology or otology, a man who did not devote at least a portion of his time to special practice.

When the Civil War ended in 1865, the Infirmary Surgeons were Robert W. Hooper, M.D., George A. Bethune, M.D., Henry L. Shaw, M.D., Gustavus Hay, M.D., Hasket Derby, M.D., and Francis Peleg Sprague, M.D. — two "Old Guards" and four "Young Turks." The difference between the two groups is highlighted by a story told by Hasket Derby of the trials the young men had in teaching George Bethune how to use the ophthalmoscope, an instrument that had been in use in European ophthalmic centers for almost fifteen years.

The young men made no secret of the fact that they were not happy with what they had to work with. The Infirmary was like nothing they had seen in Europe. The clinic area was too small and badly laid out, the wards were crowded and lacked proper ventilation, the domestic staff was inadequate and not professional. For surgery and examination, there were too few instruments. There were no trial lenses, although there were two or three horn frames holding cataract lenses that were carefully stored in a cupboard to be used as the occasion required. A large brass dinner bell was the only device to test hearing. The older men had used their own instruments when they had done their surgery. They had tested vision by asking the patient to read a sign on the clinic wall, identify coins, or read a page from the city directory. The tick of their watches had served to diagnose hearing loss. This was not to be for the "Young Turks." They persuaded the Managers to spend $30 for a set of trial lenses and to import a Jaeger ophthalmoscope.

When the instrument arrived, a coat room was converted into an examining room.

The appointments of the young Surgeons and their subsequent demands, all of them legitimate in retrospect, served to inaugurate an era that was marred by a lack of understanding or communication between the Managers and the Surgeons. New men — men of a new breed — on both Boards compounded the problem. The easy and informal days of the 1840s and 1850s were at an end. How the professional pride of the young Surgeons must have been wounded when the Managers voted to remind them to attend the Infirmary at the hour fixed for their visit and not to keep the patients waiting. And again how must the wound to their professional pride been compounded by this vote taken on February 15, 1866: "Voted: That the Secretary write to the Surgeons of the Infirmary, calling attention to the very large expenditure for the use of Atrophine, and suggesting to them that it should not be distributed to the patients for their own use, but should be, so far as possible, administered only by the Surgeons themselves." The Managers were suggesting to the Surgeons how the patients should be treated. A line had been crossed.

Some understanding of the Managers' action comes when it is noted that the total cost of operating the Infirmary in 1865 was $8,746. That year the cost of drugs and medicines, all given free of charge to the patients, was $1,072, almost one-eighth of the total budget. A year later the cost of operating the Infirmary rose to a sum in excess of $11,000. Here is the population of the Out-Patient Clinic for three days in 1866:

	Eye	*Ear*	*Total*
Friday, August 3	*42*	*16*	*58*
Saturday, August 4	*43*	*0*	*43*
Monday, August 6	*61*	*23*	*84*
Total	*146*	*39*	*185*

The Managers and the Surgeons moved to bring order to the wave of charity work that was theirs. They agreed that the out-patients would receive the same gratuitous care as always by applying to the Infirmary between the hours of 9 and 11 each day except Sunday. The Assistant to the Surgeon would be on duty each day during those hours. The Surgeons, divided into two teams of three each, would serve alternating terms of three months each.

To make a total of six Surgeons, Benjamin Joy Jeffries, M.D., was appointed to "attend to diseases of the ear as well as the eye."

The experience of laying out new rules for the management of the house may have served to bring the Surgeons and the Managers together in some areas, but not in all. The year 1867 ended on a sour note. Prior to that year, the Managers had been satisfied with publishing in the Boston newspapers an abridged Annual Report. Now they brought out a report in pamphlet form. It was intended for general distribution. More than half the pages were devoted to describing the Surgeons' work. The Surgeons were proud of what they had done and wanted to inform their colleagues in other cities of their work and their results. They asked the Managers for 150 additional copies. The Managers did not seem to understand. With the greatest reluctance, they made the requested copies available with the stipulation that the copies be distributed in New England alone. They feared that the Infirmary would be inundated with out-of-area patients if word of its good works was spread too far.

Again an understanding of the Managers' action comes when their problems are made known. By 1870 the population of the Commonwealth had grown to 1,500,000, an increase of 50 percent in 20 years. The number of patients seeking shelter and assistance at the Infirmary soared to a figure of over 5,000 per year. One-fourth of these suffered from diseases of the ear. The Surgeons pressured again and again for more space, more sophisticated facilities, more manpower. But the money the Managers had for the charity did not increase in proportion to the demands of the patients and the Surgeons. To their credit, somehow, somewhere, the Managers found the money. One use to which they put it was to establish a separate Aural Service.

In 1870 the Surgical Staff numbered seven. With a group this size, the Surgeons decided it was time to formally organize themselves. Accordingly, on October 21, 1870, they held their first meeting in the parlor of the Infirmary. Absent from that meeting, and from all subsequent meetings until his resignation, was Robert W. Hooper, the last of the "Old Guard." The first meeting was an organizational one and little other than such business was transacted. The second meeting, held three days later, was a far different affair. If the minutes of that meeting are complete, the Surgeons concerned themselves with three pieces of business: when the next meeting would be held, the appointment of a second Assistant to the Surgeons, and the front door of the Infirmary. Dr. Derby

moved, and all but one Surgeon voted with him "that no patient be admitted at the front door of the Infirmary except on written order of a Surgeon." The Secretary, Dr. Willard, was directed to inform the Managers of the vote.

The President of the Board of Managers in 1870 was Edward H. Clarke, M.D. A number of the young Surgeons had once been his pupils at Harvard Medical School. When Dr. Clarke received the Surgeons' message, he dispatched an angry letter to Augustus Lowell, Esq., the Managers' Secretary. "The antagonistic elements of the Board of Surgeons of the Mass. Eye & Ear Inf. have culminated in open rupture. The Surgeons have appealed to the Trustees. It is desireable to settle the matter at once. Will you therefore call a meeting of the Trustees." Augustus Lowell did his duty. The meeting was held and it was voted: "That the rule of the Trustees, adopted many years since, for the admission of Patients at the side door be observed & that no patient hereafter be admitted at the Front door of the Infirmary except under permission given by the Visiting Committee."

Note the important difference between this vote and the Surgeons' vote: the Surgeons wanted the right to give orders to admit or not to admit patients at the front door; the Managers said no, their Visiting Committee had that power and it would not be surrendered. Again, a line had been crossed — this time by the Surgeons.

A search of all documents has failed to reveal the significance of admitting patients at the front door versus doing so at the side door. The same search shows that this incident marked a turning point in the relations of the two Boards. As time went by, they evidenced greater respect and understanding for each other, the areas of authority became more clearly defined, and the two groups worked more closely for the common good of the Infirmary. But, all business — important and unimportant — even a Surgeon's request for a short leave of absence was done in formal letters between the Secretaries of the two Boards. All communication was in writing.

Another thing learned from the search of the documents was that a great change in the attitudes of the Surgeons and the Managers had taken place. Of the 12 Managers who had been on the Board in 1850, only three remained. One 1850 Surgeon was still in service. From the founding day until the late 1850s, the chief motive of both Boards seems to have been that of Christian charity; by the

close of the 1860s, this had changed to one of civic duty. This can be demonstrated by comparing Reynolds's dedicatory address with this passage taken from the autobiographical notes of Hasket Derby, M.D. Derby, certainly one of the "antagonistic elements" mentioned by Clarke, wrote how he and the other young Surgeons saw things at the Infirmary during the stormy 1860s:

> *. . . I obtained an appointment as surgeon at the Massachusetts Charitable Eye and Ear Infirmary, at that time a sleepy old institution in the hands of a couple of amiable but ignorant and indolent gentlemen of leisure. It took care of about 2,500 patients a year. The modernization of this Institution was the work of years, and encountered the most bitter and virulent opposition. Nevertheless, it was ultimately accomplished, old abuses were corrected, its staff enlarged, a portion of the objectionable elements gradually eliminated . . . still further changes are necessary to enable it to do its increasing work. Much of the hardest work of my life has been done here . . .*

Hasket Derby was not a tolerant man; he was not a modest man. He was a man of positive opinions and a forceful personality. "What he knew, he knew he knew, and there was no latitude allowed. He not only knew that he knew, but also acted courageously upon that knowledge." Of his first year in private practice in Boston he wrote:

> *The rapidity with which I obtained practice was astonishing. It was partly due to the influence of my father's friends, as well as my old teachers in the profession, partly to the absence of excessive competition, and also in great part to the fact that I was the first to bring home from Europe a knowledge of the great discoveries of von Graefe and Donders that revolutionized our science. I was the first to measure patients for glasses in Boston and give them a written order on an optitian, the first to do the operation for glaucoma, the first to prescribe for astigmatism. Patients, and those too of the best classes, soon flocked in on me. I charged forty dollars my first month, twenty-five hundred my first year, and five thousand the second. Such rapid success in our profession was almost unprecedented.*

The father Hasket wrote of was Elias Derby, a descendant of the famous family of Salem ship owners. Hasket attended private schools in Boston and then went on to "rural" Amherst for his

undergraduate work. He graduated from Harvard Medical School in July 1858, having been instructed by such worthies as Edward H. Clarke, M.D., Oliver Wendell Holmes, M.D., D. Humphreys Storer, M.D., "morbid John" B.S. Jackson, M.D., and Richard M. Hodges, M.D. During his last year, he was house surgeon at the Massachusetts General Hospital, serving as an assistant to Henry Jacob Bigelow, M.D. Of his days as a medical student, he wrote: "It was a busy life, but the system was a vicious one, and I often wonder how we learned as much as we did." He used kinder words when he wrote of his special training in Europe.

It was Derby's good fortune to arrive in Europe during the first years of the "golden age of ophthalmology." He was privileged to be a student of all the giants — Bowman and Critchett in London, Arlt and Jaeger in Vienna, Donders and Snellen in Utrecht, and the greatest of them all, Albrecht von Graefe in Berlin. Von Graefe became Derby's idol. He had a bust of the master in his office, and he named his first born son Charles Albrecht in his honor. When Derby took his appointment at the Infirmary, he tried to model its clinic along the lines of von Graefe's famous Berlin clinic. Ophthalmoscopy, scientific refraction, glaucoma surgery — all the elements of the new ophthalmology that he used in his private practice — he used in the clinic of the Infirmary. It was he who brought to the Infirmary Snellen's test charts, astigmatic charts, and the metric system. He allowed there to be no secrets of the work done. For years the Annual Reports listed in tabular form, according to the American Ophthalmological Society format, the results of the cataract operations he and the other surgeons did. When von Graefe introduced his modified linear method, Derby wasted no time in doing a study of its worth on the Infirmary clinical patients. The results, successes and failures alike, were published for all to read.

The system at the Infirmary did not permit there to be a Chief of Service. Nevertheless, Derby led and others of the ophthalmic staff followed. His position, nationally and internationally, was the greatest of them all. His name was known as one of the founders of the American Ophthalmological Society and of the New England Ophthalmological Society, and as being a member of European societies. He published more than 70 scientific papers. In one area of Boston ophthalmology, Derby knew failure. He never became Professor of Ophthalmology at Harvard Medical School. That post was held by Henry Willard Williams, M.D., and relinquished at a time when Derby was too far advanced in age to

compete for it again. Much later, in 1923, the professorship did go to a Derby — George Strong Derby, M.D., son of Hasket.

Gustavus Hay, M.D., the oldest of the "Young Turks," was appointed Surgeon at the same time as Derby. His academic preparation was most unusual. He completed Boston Latin School at the age of 15. At this own request, he spent five years to get his bachelor's degree at Harvard. He then went on to spend three years at the Lawrence Scientific School. For a time he worked for the United States Coast Survey. Then he decided to go to medical school and took his degree from Harvard in 1857. The Infirmary first knew him as an Assistant to the Surgeons in 1859. In 1861 he took a leave of absence to study ophthalmology at the same European centers Derby had known.

Dr. Hay had a most unusual mind. Mathematics, and with it music, gave him solace and pleasure. The work of Donders on refraction held special fascination for him. For several years, he spent one or two hours each afternoon with a friend going over the work of the Utrecht professor and others. Yet he was a skillful surgeon and a clinician of note. Some idea of his breadth of interests can be seen in these two titles taken at random from his 30 scientific publications: "On a Postulate Respecting Form of Deviation from a Straight Line in a Plane" and "Some cases of Extraction of Cataract Preceded by Iridectomy."

Hay was not one to be dominated by Derby. He was in wholehearted accord with his younger colleague when the problem was one of the clinic and its patients, but when Derby went off into other areas, Hay would not follow. By 1875 the hurry and stress of hospital work became too much for this kindly and modest man, and he requested to be relieved and to be appointed to the Consulting Staff.

Residents of East Boston know well Jeffries Point and its yacht club. The area gained that name because it was once the site of the summer home of John Jeffries, M.D., cofounder of the Infirmary. On what was Noddles Island he built a cottage for his family of young children to use in the summer time. In the late afternoon, Jeffries would row his boat across the harbor to the cottage, spend some time with his children, and then at nine o'clock row back to the city and his office and patients on Franklin Street. One of his sons was Benjamin Joy Jeffries. The boy was never called Benjamin, always Joy or B. Joy — Joy being the family name of one of his ancestors. One biographer wrote of his name: "It was indeed a

happy and prescient impulse which induced his parents to place it in the center of his name. For Joy was the central characteristic of Dr. Jeffries being — joy for himself and joy for others also."

Like all proper Boston boys, B. Joy went to Boston Latin School, then on to Harvard College and Harvard Medical School, graduating in 1854. Like Derby and Hay, he went to Europe for special studies. He chose the unusual combination of ophthalmology and dermatology. In his first years of practice in Boston he confined his work to these two specialties. He and Francis Peleg Sprague, M.D., opened a free dispensary for the treatment of diseases of the eye and skin on Eliot Street. The dispensary ceased to be when he and Sprague accepted appointments at the Infirmary. His appointment, made in 1867, was for him "to attend to diseases of the ear as well as the eye." This was rather strange as Jeffries had no special training or interest in diseases of the ear. In time his appointment would be for diseases of the eye alone; the problems of the ear would go to another.

Jeffries served in the Infirmary as Surgeon for 34 years. In the early years, he was one with Derby in reforming the services. But he and Derby did not agree on the use of ether anesthesia in ophthalmic surgery. Jeffries felt that properly administered ether could and should be used in all eye operations. He made a special trip to England to demonstrate his views. Derby took the opposite view that anesthesia of any nature was unnecessary in most eye operations. He ran a study, using one hundred consecutive cases of cataract extraction from his private practice and from the Infirmary clinic to prove or disprove his contention. The view of both men became of academic interest with the introduction of cocaine as a local anesthetic.

Jeffries's greatest interest was in color blindness, its danger and detection. Twenty-four of his 66 publications were on this subject. He was able to assemble the statistics on 27,929 school children. If Boston and New England did not know of color blindness, it was not the fault of B. Joy Jeffries. He lectured on the subject every time he could find an interested audience.

Next to Hasket Derby, Jeffries became nationally and internationally the best known ophthalmologist in Boston. He belonged to all the societies, attended all the meetings, and more often than not read a paper. One of his most delightful offerings was made at the 1885 meeting of the American Ophthalmological Society. There he advocated the use of the prepuce for transplanting in flap

operations. The tissue was available. The Jewish rite of circumcision was often enough performed in centers of ophthalmic surgery; thus, if no dogma was violated, a constant supply was assured. Could not ophthalmic surgeons find some use for the most delicate piece of skin obtainable? Only one man present at the meeting thought there might be.

One of the lesser figures to be appointed to the Infirmary staff in the 1860s was Francis Peleg Sprague, M.D. In many respects Sprague was a throwback to the Hooper-Bethune school of gentlemen practitioners. The first lines of his obituary read: "Dr. Francis Peleg Sprague was unique in American ophthalmology in that he carried a heavy service as an ophthalmic surgeon at the Massachusetts Charitable Eye and Ear Infirmary for twenty-five years, yet never entered private practice. Possessed of an ample income, he did this great work from the overflowing kindness of his heart and the desire to be of service to his fellow men."

Like his colleagues, he was a Harvard Medical School graduate, a Boston hospital interne, and a student in the European centers. During the Civil War, he served for two years as a Surgeon in the Union Army. He was an original member of the American Ophthalmological Society and the New England Ophthalmological Society.

Sprague published no papers, thus his thinking as an ophthalmologist cannot be examined. His Infirmary case records that have been studied are no different in general from those of his more active colleagues, and his results are on a par with theirs.

It is agreed that his service to the Infirmary was "faithful, persistent, benign, liberally interspersed with secret generosity to the poor and helpless among his patients . . ." He was never in a hurry with his clinic patients; each case received careful study and kindly encouragement. In complicated and nearly hopeless cases, he would dare to operate in the chance of giving vision and happiness to persons practically blind. The patients who came to his service were fortunate indeed. Words used to describe this unusual man were gentle and serene, kindly, respectful, safe, sane, level-headed, serious, amusing, and considerate. In the true meaning of the term, Francis Peleg Sprague, M.D., must have been a gentleman.

When called on to make appointments to the Surgical Staff in the early 1860s, the Managers turned to young men of the city known to have special training in ophthalmology and otology. Later it became the custom, although not always, to advance a man

from Assistant to the Surgeons to the post of Surgeon. Two men so advanced were Robert Willard, M.D., and Henry Lyman Shaw, M.D.

All the biographical data on Willard that can be located is in Harrington's *History of Harvard Medical School.* He was born in Boston on December 8, 1838, went to Harvard College and then on to Medical School, graduating with the class of 1864. He was a House Physician at the Massachusetts General Hospital. He saw action as a Surgeon with the Union Navy in the last months of 1864 and the early months of 1865. In October 1865 he was appointed Assistant to the Surgeons at the Infirmary. In 1868 he was made Surgeon. There is no record of his having gone abroad for special study, so it is assumed that he got his special training at the Infirmary. He wrote no papers. When he died in 1892, his professional library and instruments were willed to the Infirmary.

Henry Lyman Shaw was born in the same year as Willard, in 1838. However, he graduated from Harvard Medical School at an earlier date, in 1859. For years he served as a District Physician at the Boston Dispensary. In 1862–64 he was Assistant to the Surgeons at the Infirmary. In October 1864 he was named Surgeon. From a letter to Augustus Lowell, Secretary of the Board of Managers, requesting a leave of absence, it is known that he had at least three months of special training in Europe.

Willard and Shaw were different from their colleagues Derby, Hay, Sprague, and Jeffries. The latter were ophthalmologists, did ophthalmic work at the Infirmary, and devoted much if not all of their private practice to that specialty. Willard and Shaw were oculist-aurists, ophthalmologist-otologists, or in today's jargon, "double Es." During the early decades of medical specialization in America, it was common for one man to practice both specialties. Even the great figure, Herman Jacob Knapp, M.D., of New York, had a twin specialty practice and belonged to and held offices in the national societies of both specialties. In some respects, the Infirmary, pledged to the care of those suffering from diseases of the eye and ear, was an ideal place to train men for the twin specialties. Willard and Shaw were the first graduates of the system.

These then were the men who were appointed to the Surgical Staff of the Massachusetts Charitable Eye and Ear Infirmary in the 1850s and the 1860s. On November 1, 1870, the Managers appointed Clarence J. Blake, M.D., to the Staff. With that appointment a new chapter began at the Infirmary.

SURGICAL STAFF APPOINTMENTS PRIOR TO NOVEMBER 1, 1870

The names are in alphabetical order. Whenever possible the life dates of the men are given. The dates of the appointments are taken from the Minutes of the Meetings of the Board of Managers. This means that the dates are of the Meeting when the appointment was made or terminated. Each man's full term of service at the Infirmary is given. The term Surgeon is used throughout because this is the term used in the Annual Reports of the time, although by 1870 some of the Surgeons were concerned solely with ear diseases and others with eye diseases. The terms Ophthalmic Surgeon and Aural Surgeon would come into use at a later date.

Bethune, George Amory (November 3, 1812 — April 5, 1886)
Assistant Surgeon — November 9, 1836 — November 2, 1842
Surgeon — December 23, 1842 — Resigned — May 4, 1866

Coolidge, Algernon, Sr.
Assistant to the Surgeons — November 2, 1858 — August 2, 1859
Surgeon — August 2, 1859 — Resigned — February 2, 1864

Cunningham, (Edward Linzee [?])
Assistant Surgeon — November 3, 1834 — November 9, 1836

Davenport, (Edward Jones [?])
Assistant Surgeon — November 3, 1834 — November 9, 1836

Derby, Hasket (June 29, 1835 — August 21, 1914)
Surgeon — January 1, 1863 — Resigned — September 23, 1892
Consulting Surgeon — September 23, 1892 — Died — August 21, 1914

Dix, John Homer (September 30, 1811 — August 25, 1884)
Apothecary — November 3, 1834 — November 9, 1836
House Surgeon — October 31, 1837 — October 30, 1838
Assistant Surgeon — October 30, 1838 — November 1840

Handy, George E.
Assistant to the Surgeons — May 10, 1868 — February 9, 1870

Hay, Gustavus (1830 — April 26, 1908)
Assistant to the Surgeons — August 2, 1859 — Leave of absence — October 18, 1861
Surgeon — December 4, 1862 — Resigned — April 10, 1874
Consulting Surgeon — November 3, 1875 — Resigned — August 1, 1899

Hooper, Robert Williams (October 25, 1810 — April 13, 1885)
Assistant Surgeon — November 9, 1836 — November 2, 1842
Surgeon — December 23, 1842 — Resigned — November 7, 1871
Manager — October 26, 1871 — Died — April 13, 1885

Jeffries, Benjamin Joy (March 26, 1833 — November 21, 1915)
". . . to attend to diseases of the ear as well as the eye" — February 12, 1867 — February 11, 1868
Ophthalmic Surgeon — February 11, 1868 — October 31, 1901
Consulting Surgeon — October 31, 1901 — Died — November 21, 1915

Jeffries, John (March 23, 1796 — July 1876)
Cofounder — October, 1824 — March 20, 1826
Surgeon — March 20, 1826 — Resigned — February 7, 1843
Manager — March 6, 1827 — Resigned — December 23, 1842

Mackie, William Basilo (1836 — [?])
Assistant to the Surgeons — November 1, 1864 — (?)

Miller, Horace George (April 6, 1840 — [?])
Assistant to the Surgeons — (?) — Resigned — October 21, 1865

Owens, Thomas Robert (1825 — September 3, 1861)
Assistant to the Surgeons — August 26, 1850 — November 15, 1851

Reynolds, Edward (February 25, 1793 — December 25, 1881)
Cofounder — October 1824 — March 20, 1826
Surgeon — March 20, 1826 — November 2, 1858
Consulting Surgeon — November 2, 1858 — Resigned — October 26, 1871
Manager — *March* 6, 1827 — Resigned — December 23, 1842; Elected — October 27, 1853 — Resigned — October 26, 1871

Reynolds, John P.
Assistant to the Surgeons — May 31, 1850 — Resigned — August 26, 1850

Sharp, John Cauldwell (July 9, 1826 — September 26, 1890)
Assistant to the Surgeons — November 15, 1851 — November 2, 1858
Surgeon — November 2, 1858 — August 2, 1859 (?)

Shaw, Henry Lyman (September 19, 1838 — April 2, 1911)
Assistant to the Surgeons — October 18, 1861 — February 2, 1864
Surgeon — February 2, 1864 — November 4, 1871
Ophthalmic and Aural Surgeon — November 4, 1871 — October 1888
Ophthalmic Surgeon — October 1888 — November 28, 1893
Consulting Surgeon — February 6, 1894 — Died — April 2, 1911

Southard, William Freeman
Externe and Acting Assistant to the Surgeons — May 3, 1870 — Resigned — February 9, 1871

Sprague, Francis Peleg (February 17, 1834 — October 6, 1821)
Surgeon — May 3, 1864 — Resigned — October 30, 1890

Treadwell, Josiah Brackett (1840 — May 6, 1885)
Assistant to the Surgeons — March 11, 1864 — Resigned — August 5, 1864

Ward, Henry Artemus (August 9, 1797 — June 16, 1869)
Assistant Surgeon for Diseases of the Ear — October 31, 1833 — November 3, 1834
Assistant Surgeon — November 3, 1834 — November 2, 1835

Willard, Robert (December 8, 1838 — February 6, 1892)
Assistant to the Surgeons — October 21, 1865 — February 18, 1868
"*. . . surgeon for treatment of diseases of the ear*" — February 11, 1868 — November 4, 1871
Ophthalmic Surgeon — November 4, 1871 — Died — February 6, 1892

★ 4 ★

Otology at the Infirmary in the Nineteenth Century

When Edward Reynolds and John Jeffries opened their one-room dispensary in Scollay's Building in October 1824, they named their private charity venture the Boston Eye Infirmary. They did not solicit patients, ". . . those patients who had been cured sent others, and thus the numbers of applicants increased." In the first 15 months, 859 patients applied for relief. Of this number, 82 suffered from diseases of the ear and 777 from diseases of the eye. This can be read to mean that the two men, although operating an eye infirmary, would accept ear patients. Also, that the public, for whatever reason, thought of the eye and the ear together, thought it "natural" that the diseases of both organs should be treated in one institution no matter what the sign over the door read. Thus, from its first weeks, the Boston Eye Infirmary was in truth the Boston Eye and Ear Infirmary; the patient population said so and the Surgeons concurred. A seal of approval was placed on this by the Board of Managers on April 6, 1826, when they voted: "This Institution shall be denominated the Massachusetts Charitable Eye and Ear Infirmary."

It did not follow that because the eye and the ear, ophthalmology and otology, were officially together in the Infirmary that they were equals and would know equal attention. This could not be. First, the census of the time show that the treatable eye patients far outnumbered the treatable ear patients. Second, the state of the art of ophthalmology in the first half of the nineteenth century was far in advance of the state of the art of otology. This was summed up succinctly by Edward Reynolds in his 1828 Infirmary report: "Diseases of the Ear are of necessity less satisfactory in result of treatment than those of the Eye; many of its diseases will most probably remain the opprobria of the Profession, but our success has perhaps been as great in this neglected branch as ought to be expected." It is again demonstrated when it is recalled that John Cunningham Saunders, founder of the London Dispensary for curing diseases of the Eye and Ear and the "father" of the eye and ear infirmary movement, asked permission to cease treating diseases of the ear because of the vast number of incurable cases he saw. His best success was with cases of inspissated wax. He wrote that

to try to treat ear diseases and know so little success diminished his reputation.

The ear cases listed by Reynolds in his 1828 report were:

Suppuration of Tympanum	*14*
Obstruction of Concha	*19*
Herpetic Eruption of the Ear	*5*
Obstruction of Eustachian Tube	*1*
Nervous Deafness	*36*
Abscess in the Concha	*13*
Fungus Tumor in the Concha	*1*
Otitis	*7*
Tension of Tympanum	*1*
Erysipilatous Inflammation of Ear	*1*
Total	*98*

There were 583 ophthalmic cases seen that year.

Lists such as this are all the documents we have of the aural clinical activities of the Infirmary for over ten years. There are no detailed records of any sort, eye or ear, prior to the Infirmary's occupying the house on Green Street in 1837.

Proof that there was a volume of aural work to be done is provided by the appointment in 1833 of Henry Artemus Ward, M.D., to be Assistant Surgeon for Diseases of the Ear. A year later Edward Jones Davenport, M.D., was appointed Assistant Surgeon. From his Infirmary experiences, he drew material for two articles that appeared in the 1837 volume of the *Boston Medical & Surgical Journal*: "Polypi in the Meatus Auditorium Externus" and "Congenital Deafness Incurable." These were the first aural publications to come out of the Infirmary.

Another Assistant Surgeon of the 1830s was John Homer Dix, M.D. He had served earlier tours of duty as Apothecary and House Physician. In 1839 he published in the *Boston Medical & Surgical Journal* the third paper to come out of the aural service of the Infirmary: "Deafness Relieved by Injections of Water Through the Eustachian Tube." He had imported a silver catheter from France for his work. Dix left the Infirmary in 1840 and three years later made the important decision to become a full-time specialist in ophthalmology and otology. He always maintained he was the first U.S. doctor of high professional standing to do so. If he was correct in this, then the Aural Service and the Ophthalmic Service of the Infirmary trained the country's first full-time specialist in its fields

of clinical endeavor. Dix's later career was a credit to the institution that trained him.

The fourth publication to come out of the Infirmary Aural Service in the first 40 years of the hospital's history was an offering by George A. Bethune, M.D. Like the first three, it appeared in the *Boston Medical & Surgical Journal*: "Larvae of the *musca vomitoria*, or Flesh Fly, from the Ear of a Child," an article in the 1856–57 volume. Bethune, along with Hooper, had served as Assistant Surgeon. In 1842 the two joined Reynolds as Surgeons. Until 1858 these three men were the Surgical Staff of the Infirmary. All patients, both eye patients and ear patients, were treated by these men. By the standards of the time, they were professionally equal to the task. The number of ear patients they treated averaged about one in eight of the total patients.

The four published papers are mentioned here because they provide the best evidence we have to tell what the Surgeons of the Infirmary knew of the ear and its diseases and the treatment then used. The case records of the period are too brief to be informative.

There can be no question that the Infirmary Aural Service was an island of sound medicine, that its Surgeons were unique. It has been written of the times that the practice of otology in this country was almost exclusively confined to charlatans. In most areas, those who wished advice upon a disease of the ear were forced to seek aid outside the profession. Otology was encompassed with a shroud of quackery, medical as well as popular. Professors told their students, "We know nothing about the diseases of the organ of hearing; do not meddle with the ear." In addition to the Infirmary Staff, there was one man in Boston who refused to accept such dicta. His name — Edward Hammond Clarke, M.D.

Clarke was born on February 2, 1820. He graduated from Harvard College in 1841 and took his M.D. at the University of Pennsylvania in 1846, "where he had gone on account of a weak constitution." Like many of the fortunate young Bostonians of the time, he went to Europe for advanced study, devoting special attention to diseases of the ear. Upon his return, he and others organized the Boylston Medical School as a rival to Harvard Medical School. Clarke lectured on Materia Medica and Otology. His was the first formal program of lectures on otology to be given in the Boston area. An arrangement with the Infirmary allowed him to use the patients there for clinical demonstrations. Clarke soon gained such a reputation as a thorough and inspiring teacher that Harvard had no choice but to woo him away from the Boylston School. In

1854 he was named Harvard's Professor of Materia Medica. At the time, there was no place on the Harvard curriculum for a regular course of lectures on diseases of the ear.

Clarke was one of the handful of men in this country in the 1850s and early 1860s who gave serious concern to diseases of the ear. He had no hospital appointments, so all of his experiences were with private patients. But he could not see those private patients unless the day was bright, for he, like others of the time, lacked that so simple a device as a centrally perforated concave mirror to make possible the study of diseases of the ear on living subjects. To make the most of sunlight when he had it, he employed a mirror attached to a stand by a universal joint for reflecting sunlight from a window into the room, and then by means of a lens of about two inches focus directed the light through a silver speculum into the meatus. Although thus limited, his experiences were numerous enough for him to gather material for three publications that have been judged to be among the best and most original of their time: "Contributions to Aural Surgery, Polypi, and Fungus of the Ear" (1854), "Observations on the Causes, Effects, and Treatment of Perforation of the Membrana Tympanum" (1858), and "Observations on the Nature and Treatment of Polypus of the Ear" (1867). When he treated polypus, he used a snare of his own devising.

By the mid-1850s Clarke was one of the leading figures on the Boston medical scene, with a large and lucrative private practice, a Harvard professorship, and a reputation of being a scholar and an accomplished orator. He met his civic duties by serving as Boston's Commissioner of Parks. He, more than any other Boston doctor, was responsible for the otology career choices of Clarence J. Blake and J. Orne Green. There is no question that in his time he was Boston's leading otologist, although he did not have a special practice as such. In 1869 Edward Hammond Clarke, M.D., was elected President of the Board of Managers of the Massachusetts Charitable Eye and Ear Infirmary. That election had a most profound effect on the future of otology at the Infirmary.

In 1867, two years prior to Clarke's election, the Infirmary Surgeons made the point to the Managers that the visits of the aural patients to the clinic had in one year increased by one-third, reaching a total of 901 of the 3,918 visits of all patients. The Managers responded by appointing "a surgeon whose duty it should be to attend to diseases of the ear as well as the eye." The Surgeon selected

for the post was B. Joy Jeffries, M.D. Everyone could not have been happy with this dual assignment for a year later the Managers met again and this time relieved Jeffries of his aural commitments. He was named Ophthalmic Surgeon, a post he held with distinction for 34 years. Robert Willard, M.D., Assistant to the Surgeons, was named "surgeon for the treatment of diseases of the ear."

Edward Clarke, M.D., was President for one year when the Board appointed his young associate, Clarence John Blake, M.D., to be Aural Surgeon. The date of that appointment, so important to the development of otology at the Infirmary, was November 1, 1870. Now there were two Aural Surgeons — Willard and Blake. A year later, in 1871, the team was changed to Blake and Shaw — Henry Lyman Shaw, M.D. Willard had asked to be transferred to the Ophthalmic Staff. Robert W. Hooper, M.D., who had served as Surgeon since 1842, voluntarily resigned to make room for Willard. In addition to being Aural Surgeon, Shaw held an older appointment to the Ophthalmic Staff, that is, he held a dual appointment.

For the sake of clarity, the dates of these appointments were:

February 12, 1867

B. Joy Jeffries — "*. . . to attend to diseases of the ear as well as the eye.*"

February 11, 1868

B. Joy Jeffries — *Ophthalmic Surgeon*

Robert Willard — "*. . . surgeon for treatment of diseases of the ear.*"

November 2, 1869

Edward H. Clarke — *elected President of the Board of Managers*

November 1, 1870

Robert Willard — *Aural Surgeon*

Clarence J. Blake — *Aural Surgeon*

November 4, 1871

Robert W. Hooper — *resigns as Surgeon*

Robert Willard — *Ophthalmic Surgeon*

Clarence J. Blake — *Aural Surgeon*

Henry L. Shaw — *Aural Surgeon and Ophthalmic Surgeon*

Blake and Shaw remained the only Surgeons on the Aural Service until 1888, when Shaw left and Blake was joined by Spear and Green.

Under the presidency of Clarke, the Managers "expressed their liberality" by providing a new and ample consulting room for aural patients that experience proved was admirably adapted to the purpose. The patients and the Surgeons knew greater comfort. The good light that the new rooms afforded at all seasons enabled the Surgeons to make a more thorough examination of the ear and be more likely to arrive at a correct diagnosis. Blake and Shaw staffed the clinic on alternate quarters. In 1872, the first full year in the new clinic, the two men saw 1,474 patients. That same year the eye patients numbered 4,501.

The record of the activities of the two Aural Surgeons for this first year covers 18 pages of the 1872 Annual Report. In tabular form they listed the diseases seen and the number of each treated. Certain individual cases of interest were selected for detailed presentation. It would seem that all of their surgery was cases that could be done on an outpatient basis in the clinic. "It was necessary to refer many interesting cases of deafness associated with cerebral disease, and with injury to the cranium, to other institutions, on account of the necessity of retaining all available beds either for operative cases or accident requiring hospital treatment." "Of the more serious cases of purulent inflammation of the middle ear there were none in which it became necessary to open the mastoid cells. These patients were taken into the Hospital, if possible, and leeches freely applied behind the ear." In light of later events, the most interesting portion of this first detailed annual report of the work of the Aural Department is Blake's account of a series of experiments he did with regard to the perceptions of high musical notes in cases of perforation of the membrana tympanum.

From the day of his appointment until the day of his retirement from the active Staff in 1905, Clarence Blake was "Mr. Otology" at the Infirmary. In addition, he dominated the otologic scene in Boston. Blake won and held his position by virtue of an enormous amount of good, hard work, the judicious use of his understanding, and his ebullient personality. Nowhere in the many words that

Clarence John Blake, M.D. (1843–1919). Aural Surgeon at the Infirmary, Professor of Otology at Harvard.

have been written on his rich career can there be found one that is harsh or critical. A photograph taken in his middle years, shows him as a balding, portly man with more than a passing resemblance to the late Oliver Hardy of the comedy team of Laurel and Hardy. That a man of such a body build could have accomplished everything that Blake did is contrary to all stereotypic thinking about fat men.

Clarence John Blake was born in Roxbury, Massachusetts, on February 23, 1843. His father, an industrial chemist, was affluent enough to send his only son to the Roxbury Latin School, the Land and Lovering School, and the Lawrence Scientific School at Harvard. From there he went to Harvard Medical School. While in his second year of medical school, 1864, he became one of the first medical house officers at the newly opened Boston City Hospital. Because of the Civil War, Harvard allowed certain of its students to spend their third and final year in war work or in a hospital in lieu of attending classes. Blake was one of these, receiving his M.D. degree in 1865 after completing his term as house officer.

Once he had his degree, Blake left Boston for Europe and its medical capital, Vienna. After a time studying obstetrics, he entered the aural training program of Adam Politzer, M.D. Blake's medical future was determined by Politzer and the months he spent in his clinic and laboratory. The two men formed a friendship that endured throughout their lives. During the last months he spent in Vienna, Blake was Politzer's assistant, not only in the clinic, but also in the laboratory. Blake was the first American to hold the post.

Blake spent more than three years abroad. When he returned to Boston in the summer of 1869, he was, thanks to Politzer, a master of the otology of the time. Not only this, he was master of the French and German languages. True to Politzer's example, as soon as he received his appointment, he turned the Infirmary Aural Clinic into a center of experimentation and observation. In connection with cases of perforation of the tympanic membrane, he instituted a series of studies with regard to perception of musical high notes, and he experimented to assess the diagnostic value of tuning forks. He devised a new form of wire snare for the removal of aural polypi and developed a new middle ear speculum. He investigated the etiology of acquired deafness with special reference to scarlet fever. And, in keeping with the spirit of the times, he tested the reaction of auditory nerve to galvanic current. In five years time, his name appeared as author of 20 papers.

In the spring of 1874, he began a study on the mechanical value of the distribution of weight in the ossicula. "His work was barely started when he took time to answer a problem posed by a young voice teacher of his acquaintance, Alexander Graham Bell. Bell's problem, how to obtain accurate tracings of the sound of the human voice, particularly of vowels, to a degree was in harmony with Blake's work. The two young men agreed to join forces. Thus began what Blake was later to term 'one of the joyous scientific experiences of a lifetime.' " The joyous scientific experience was the invention of Alexander Graham Bell's telephone.*

As noted, Blake and Henry Lyman Shaw, M.D., were the sole Surgeons on the Infirmary Aural Staff until 1888. Shaw was Blake's senior on the Staff, having been appointed Assistant to the Surgeons

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*Details on the relationship of Blake and Bell and the invention of the telephone may be found in Snyder, C. "Clarence John Blake and Alexander Graham Bell — Otology and the Telephone." *Annals of Otology, Rhinology and Laryngology* 83 (Supplement 13), July – August, 1974. 32 pp.

in 1861 and advanced to Surgeon in 1864. There is a confusion in the records that leads to the conclusion that Shaw was absent from the Staff in the mid-1860s. It is surmised, on very little ground, that he could have spent two years in study abroad giving attention to otology and ophthalmology. As he came from a family of means, there was no financial reason for him not have done so. Some support for this surmise comes when it is learned that in 1867–68, Shaw published four papers on aural subjects. One, "Politzer's Method of Treatment with Two Cases of Aural Catarrh," reads as though it were written by a newly returned student. The four Shaw papers, plus the previously mentioned four earlier papers, brings the total of Infirmary aural publications to eight in 41 years.

With the advent of printed Annual Reports in 1867, a new source of information on the Infirmary and the activities of its departments became available. As a rule, each Annual Report had a roster of the Managers and Surgeons, a report by the Managers, another by the Surgeons, statistics of cases seen and treated in the clinics and in the house, and for years a detailed report — often covering as many as 20 pages — of the cataract operations done. For only two years, 1872 and 1873, were detailed reports of the Aural Service given. In spite of this, enough information can be taken from the Annual Reports and from other documents to give a brief but reasonable overview of the Aural Service for the years 1870 to 1888.

First, the aural patients and their numbers. In 1871 there were 1,280 ear patients; in 1875, 2,085; in 1885, 2,885; and in 1888, 3,502. This shows an increase of 2,222 in 17 years. During the same period, the eye patients went from 3,978 to 9,638, an increase of 5,660.

Next, the diseases seen in the Clinic. These did not change markedly over the years, only the total number of cases of each. Otitis media in its various forms accounted for almost two-thirds of all the cases. Obstruction of the meatus with cerumen accounted for one-eighth of the cases. All other conditions — one-fifth of the total.

In 1888 there were 204 aural operations performed. Of these, 68 were for paracentesis of the tympanic membrane, 45 for removal of polypus, 43 for incising various aural abscesses, 19 for the removal of foreign bodies, and 9 for tumors of the external ear. During the same year, there were 704 eye patients in the house and 29 ear patients, 20 of whom suffered from some form of otitis media.

From the same Annual Reports, it is learned that in 1877 there

were 48 beds in the Infirmary. The Aural and Ophthalmic Surgeons were treating nearly 10,000 cases a year, and they saw this number doubling in ten years. They reported to the Managers that the two Services were in absolute need of "proper quarters for the ward-masters," "suitable quarters for the house-surgeon and his anticipated colleague," "an additional building for house patients," and "enlarged accommodations for the reception and examination of the increasing numbers of out-patients." To describe their plight and that of the Infirmary, they quoted remarks Edward Reynolds had made some thirty years earlier to describe the house on Green Street: "It is inconvenient in its domestic arrangements, deficient in the spaces allotted to the patients and to its attendants, medical and domestic, and unprovided with any modern contrivances demanded for the successful treatment of disease."

The Managers knew there were no operating rooms as such, no rooms for critical surgical cases, no provisions for isolating infectious cases, that the wards and the beds were full, and that the number of outpatients was frequently so great as to overcrowd the waiting rooms. They also knew that the books showed that in the fiscal year of 1877–78 the Infirmary's expenses were $15,652.99 and that the income was $13,975.98, leaving a deficit of $1,677.01. They reached the decision to appeal to the public and the Commonwealth for funds to alter and enlarge the structure of the Infirmary. The Managers were disappointed at the want of interest shown by the public as manifested in their slender contributions. The Commonwealth, on the other hand, responded with a generous gift. It was agreed to build a two-story wing onto the rear of the main building. The entire new area, completed in the early months of 1881, was taken over by the Ophthalmic Service. The Aural Service remained in the old building, expanding into space that had been vacated.

The Infirmary now had space for 90 beds, although only 60 were in use due to inadequate funds. How these beds were assigned to the two services in not known. What is known from the Annual Reports is that in the fiscal year 1884–85, the Ophthalmic Service had 614 patients in the house and the aural service had 18 patients. This last figure would not go above 30 for several years. As for the size of the Aural Staff, in 1878 the first Aural Externe, Edmund Doe Spear, M.D., was appointed at the annual salary of $100. The post was his until November 1883, when he was named Assistant Aural Surgeon. On the same date, Frederick Lafayette Jack, M.D., was named Aural Externe. A year later Henry Lee Morse, M.D., was named Aural Externe. The Aural Staff now consisted of two

Surgeons, one Assistant Surgeon, and two Externes. In December 1887 Jack and Morse were advanced to Assistant Surgeons and in February 1888 Spear was elected Aural Surgeon.

1888 was a memorable year for otology at the Infirmary. The first signs that this would be so came in the early months of the year when Harvard Medical School faculty faced the problem of having a compulsory fourth year for its students. The deliberations made it obvious that the importance of otology on the curriculum would know scrutiny and that the Infirmary as an aural teaching center would also know scrutiny. Clarence Blake was aware of this. At his request, on Friday, April 13, at 8:05 P.M., the Board of Surgeons met at the Infirmary. All eight members were present — Derby, Shaw, Sprague, Jeffries, Willard, Blake, Bradford, and Spear. The first order of business was to consider a letter from the Visiting Committee relative to the "precise hours of attendance at the Infirmary of the Surgeons." The Secretary was instructed to reply to the same. Next, Blake presented a three part proposition that must certainly have known an abundance of earlier private discussion. It read:

> *1st: . . . that in view of the steady growth of the Aural Department of the Infirmary (which is now second in size in the United States) it is the sense of the Board of Surgeons that the Aural Department should be made distinct in its organization and appointments from the Ophthalmic Department, it being understood that all nominations for either department shall be voted upon by the Board of Surgeons as a whole before being submitted to the Board of Managers (the majority, as heretofore, to rule).*
> *2nd: That some provision should be made for the isolation of aural house patients.*
> *3rd: That the use of the Aural Clinic for purposes of instruction in connection with Harvard Medical School (or otherwise) should be favored.*

Parts 2 and 3 were passed unanimously by the Surgeons after some discussion. Part 1, vital to the basic organization of the Infirmary, had a rougher time. Dr. Shaw, who held appointments as both Aural Surgeon and Ophthalmic Surgeon since 1871, thought nothing would be gained over what the Surgeons had by a separation of the departments. The question of double appointments, such as he held, was remarked on. Dr. Willard, who had at one

time held an Aural Surgeon appointment and now held an Ophthalmic Surgeon appointment, favored granting autonomy to the Aural Staff. The matter was put to the vote and was carried by a majority of 5 to 2. Dr. Sprague, Ophthalmic Surgeon, abstained; Drs. Shaw and Spear dissented. Dr. Spear had been appointed Aural Surgeon on February 4, 1888, a little more than two months earlier. The matter would now go to the Board of Managers for their action.

The meeting adjourned at 9:20 P.M. Less than one hour had been spent in proposing an independent Aural Department. The Board of Managers considered the communication from the Board of Surgeons at their regular meeting on May 1, 1888. They approved having the Aural Department being distinct in its organization. The Superintendent was requested to make provisions for a separate ward for ear patients. The next vote of the Managers must be given as it is recorded in the Minutes:

> *Voted: (T)hat the board of Managers has received with much gratification the unanimous proposal of the Board of Surgeons that the use of the Aural Clinic should be favored for the purposes of instruction in connection with Harvard Medical School or otherwise; that it cordially sympathizes with the desire of the Board of Surgeons to extend the usefulness of the Infirmary as widely as possible; and accordingly, it requests the Aural Surgeons to take the necessary steps to arrange for such instruction, in addition to that already given students, as shall not interfere with due attention to the patients whose interests should always be of paramount importance; that it would also be glad to receive in writing from the Aural Surgeons the plan to be pursued with such other information as they may have to offer . . .*

(This is all one sentence. In its complete form it contains at least 75 words more.)

News of the actions of the Board of Surgeons and the Board of Managers reached Harvard Medical School. On May 25, 1888, they named Clarence John Blake, M.D., Infirmary Aural Surgeon, to be its first Professor of Otology and to head its Department of Otology. It would be his task to prepare the new course of instruction in otology that would begin with the fall term.

Blake and his colleagues, once they had the green light from the Managers, moved swiftly. Their first act was to propose J. Orne

Green, M.D., to be Aural Surgeon. Next they assigned definite periods of duty to the Assistant Aural Surgeons and Aural Externes. Plans were made to use the former waiting room as a lecture room; the clinic was to be made available for teaching in connection with Harvard Medical School for postgraduate courses, for training school nurses, and for private pupils. Arrangements were made for the scheduling of the lectures and demonstrations to be given by the Surgeons. Last they requested the Managers for $100 to establish an Aural Reference Library. The Managers approved of every proposal, every action, every request. They took the occasion to express the wish that the two departments, Ophthalmic and Aural, would always work in harmony for the common good of the Infirmary and its charity and patients.

At the Annual Meeting in October 1888, the resignation of Dr. Henry L. Shaw as Aural Surgeon was read and accepted. He retained his appointment as Ophthalmic Surgeon. Never again at the Infirmary would a man hold a dual appointment as he had for 17 years. The "new and independent" Aural Staff named was: Aural Surgeons — Clarence J. Blake, M.D., J. Orne Green, M.D., and Edmund D. Spear, M.D.; Assistant Surgeons — Frederick L. Jack, M.D., and Henry L. Morse, M.D.; and Aural Externes — Edward M. Plummer, M.D., and William Sohier Bryant, M.D. Before the year ended, the Aural Department gave further evidence of its independence by having separate meetings for its Staff and by exercising the right to keep their own minutes books of their meetings. The Annual Report contained a separate section exclusive to the Aural Service. In the operating room, they had separate cabinets for their surgical instruments. All Aural house cases were now entered into separate case record ledgers.

Aural Surgeons Blake and Green were true disciples of Adam Politzer. Time and again they demonstrated this in their journal writing and in their case reports. At no time did they pay greater homage to their master than when the Aural Department became independent and they introduced into the Infirmary's patients records and the Infirmary Annual Reports the Latin language classification of ear diseases favored by that great Austrian aural clinician and teacher. They correctly named each disease they treated, but how many of their fellow aurists knew what was meant by such entities, taken at random from an Annual Report, as *Eczema pustulosum acutum*, *Corpus adventitium inanimale*, *Otitis catarrhalis secernens mucosa acuta cum hyperplasia tonsillae pharyngeae*, *Otitis media suppurativa chronica cum carie mastoideae et abscessu cervicis*, *Otitis media*

insidiosa, or *Surditas senilis*? From 1889 until 1897, Blake and Green insisted on using this nomenclature in spite of pleas of their fellows and Managers to cease and desist. As a result of this practice, only a person well-grounded in classical Latin can read with ease the names of the diseases treated by Blake, Green, and their colleagues during this period.

Next, we look at Harvard Medical School and otology. We are fortunate that Clarence Blake left an account of the early years of the Department of Otology at Harvard Medical School. He relates that it began with a lectureship on diseases of the ear in 1869 and a lectureship on otology in 1870. J. Orne Green, M.D., of the Otology Department of Boston City Hospital, had both the first lectureship and the second lectureship. The two men were of the same age, both had graduated from Harvard Medical School, both had trained in Boston hospitals, both men were protégés of Clarke, and both had done advanced work in otology in European schools and clinics. But, more importantly, the two men were compatable, they were able to work well together in providing instruction in otology to the Harvard students. Their teaching was a direct transplantation of the German methods of instruction, especially in clinical teaching. The paucity of teaching aids limited their efforts mainly to lectures and to clinical training in diagnosis and, to a moderate extent, in treatment of diseases of the ear.

The course of instruction agreed upon consisted of 12 or more lectures in which Blake and Green participated. These were given at the Medical School. For clinical teaching, the class was divided into sections of eight to 12 students, and the sections equally divided between the Aural Clinic at the City Hospital and the Aural Clinic at the Infirmary. As for graduate instruction, it was occasional, being given to individuals as a matter of courtesy or to small private classes.

In time both men rose in rank from Lecturer to Instructor. In 1888, when the Department of Otology was organized, Blake was named Professor of Otology and department head; Green was named Professor of Clinical Otology.

As noted earlier, Green was named Aural Surgeon at the Infirmary in 1888. By this time, both the City Hospital and the Infirmary had made provision for the admission of aural outpatients to the wards, under the care and supervision of the Aural Surgeons to the outpatients. This meant that the two professors were afforded the opportunity of demonstrating the more serious ear diseases and aural operations. The practice of teaching otology to Harvard stu-

dents in two hospitals remained in effect until 1891, when the Infirmary opened its new building with 30 beds devoted exclusively to diseases of the ear.

In Blake and Green, the Infirmary had on its Staff the two leading otologists of Boston. John Orne Green, Jr., was born in Lowell on June 7, 1841. His father was a physician and civic leader in Lowell. Green went to Lowell public schools, then to Exeter, Harvard, and Harvard Medical School, taking his M.D. in 1866. Two years of study in Europe took him to Berlin, Vienna, and Wurtzburg, with time also in Paris, London, and Dublin. When Boston City Hospital established its ear service in January 1869, Green was named Physician to Out-Patients for Diseases of the Ear. Later he was named Surgeon.

It was not long before he established a reputation in Boston as a painstaking and skillful aural surgeon and as an aural pathologist. He used his knowledge in this last field to good advantage in 1878 when he translated Hermann Schwartze's *Pathological Anatomy of the Ear.*

It is written that Green was a modest, kindly, and thoughtful man, unobtrusive, more willing to follow than to lead. It is also written that he brought Schwartze's radical operation of the mastoid to America and was one of the first to perform it.

Among the first cases he treated was a private patient of Dr. E. H. Clarke's seen on July 3, 1871. First, he used the conventional Wilde incision. Little relief was experienced, for in the next two weeks the patient knew on her neck and in the post-pharyngeal area abscesses that burst. The wound was re-opened twice. Six months later, on January 9, 1872, the mastoid was exposed, the carious walls of the fistulous opening removed by a gouge, and warm water syringed through the tympanum. The patient recovered.

The records we have show that at the Infirmary after 1881, when separate wards and operating space first became available to the Aural Service, the usual method of treatment for mastoid inflammation was to apply leeches to the mastoid area and make a free incision in the drumhead. The patient was then put to bed for 48 hours with a cooling Leiter coil over the ear. At a later date, the Staff used a cooling circle of rubber, devised for contused eyes by Dr. F. P. Sprague of the Ophthalmic Staff. Should this not reduce the inflammation and bring comfort to the patient, a Wilde incision would be made and the ear douched and syringed. A surprising number of patients recovered under this treatment. Cases as severe

as the Green case outlined above do not appear in the Infirmary case ledgers until 1890. By that date, Green had brought his operative skills to the Infirmary and had taught the younger men.

It should be noted that at this time fever charts made their first appearance with the patient records. And, sad to write, autopsy records by the Infirmary pathologist appeared for the first time.

Over the years, the number of mastoid cases admitted to the house and requiring surgical treatment increased dramatically. In 1895–96 there were 73 such cases. The shortest stay was one day; the longest was 159 days. Two patients died within three days of being admitted. All other patients were discharged as being improved. Most often than not, when the situation warranted it, the operation of choice was the Schwartze procedure as taught and practiced by Green.

All of these cases, in fact every case treated in the Infirmary, were patients from the sick-poor population of Massachusetts. The demands the sick-poor made on the Infirmary grew, and then grew, and then grew some more. In 1850, their visits numbered 2,004; in 1890 the total was over 15,000. The institution became so crowded that it was not uncommon for deserving patients to be refused admission for lack of accomodations. The rate of growth was most striking in the Aural Service. In 1886 there were 84 aural surgical procedures and 19 inhouse patients. Four years later, 1890, there were 420 aural operations, 48 of them mastoid procedures, and 76 inhouse patients. In the Aural Clinic, an average of 14 new patients and 53 "old" patients were seen each day. The largest number seen in any one day was 120; the least number seen was 36. All this in spite of the fact that the house services had always been unsatisfactory for aural work and that there was a lack of suitable isolating wards. More space was needed. Not just any space, but space designed to meet the standards of the antiseptic procedures that had been initiated by the Surgeons. And space was needed to house and train the professional nurses who were being recruited for service in the Infirmary. The managers looked to the public for assistance and were not disappointed, for they found a generous friend in Helen C. Bradlee, who donated $10,000 to the building fund. Mrs. Clarence J. Blake sponsored a concert that netted $2,824.23. The Managers used this money and other monies to purchase two dwelling houses on land adjacent to the Infirmary and converted them into a separate Aural Infirmary. The quarters were ready to receive patients in August 1891.

Blake described the remodeled houses as probably the most com-

plete hospital devoted to the treatment of diseases of the ear in the country. The first floor contained the clinic, waiting room, testing room, and Surgeon's parlor; the second floor had quarters for the nurses, operating room, and a male ward; the third floor had a female ward and special wards; and the fourth floor had a ward, isolating wards, and house officer quarters. The total number of beds was 30. A few months experience in the building led Blake to say that it ". . . had so far been found to satisfactorily answer the demands made upon it, with the prospect of being adequate for future needs for some time to come."

In 1891–92 the Aural Staff consisted of the following: Surgeons — Clarence J. Blake, M.D., J. Orne Green, M.D., and Edmund Spear, M.D.; Assistant Aural Surgeons — Frederick L. Jack, M.D., and Henry L. Morse, M.D.; Aural Clinical Assistants, who had once been termed Aural Externes — Edward M. Plummer, M.D., and William Sohier Bryant, M.D.

This was a staff of extraordinary high quality. Few aural centers in the country knew its equal. Of them Blake wrote, ". . . it is the earnest desire of the Staff that the Infirmary should become a center not only for the purpose for which it was primarily constructed, but also for the wider distribution of knowledge in this department which shall extend its benefits to humanity far beyond the limits of its walls." Blake, his fellow Surgeons, and the Assistant Surgeons had all known advanced training in Europe. They all knew two or three foreign languages. Their writings, original works and translations, would total close to 150. In time all of them would hold teaching assignments at Harvard Medical School and Tufts, and all of them would be Aural Staff Members of other Boston hospitals while remaining on the Infirmary Staff. Every one of them were members of the American Otological Society. Three of them — Blake, Green, and Jack — served as the Society's president. It was at the 1892 meeting of this Society that Frederick L. Jack, M.D., Assistant Surgeon, told the story of an innovative piece of aural surgery done at the Infirmary — the removal of the stapes.

During April, May, and June 1892, Clarence Blake temporarily lost the use of his right hand and was obliged to delegate part of the operative work of the clinic to Assistant Surgeon Jack. Thus Jack was given an opportunity to prove or disprove his previously conceived belief in the feasibility of the operation of stapedectomy on human subjects. He had been led to his belief by his experiences with ossiculectomy, that is the removal of the tympanic membrane, the malleus, and the incus with the objective of curing chronic

otorrhea. In three cases he had found it necessary to go further and remove the stapes as well. His results were encouraging and he told Blake so. Blake gave his blessing; and in six weeks' time Jack operated on 16 cases, a larger number of stapedectomies than had anywhere been recorded. The crude tests of the time told him what he wanted to know: The patients' hearing had improved.

This he reported to the Otological Society. Some members were impressed, others quite dubious. A year later he reported to them on 32 additional cases. In 1894 he made his last report. By then he had a total of 60 cases. That report was made with little enthusiasm; he had lost faith in the operation, referring to it as an exploratory procedure. Four years later, Gorham Bacon, a friend of Blake and Jack, wrote in his textbook: "*The results following extraction of the stapes* have been decidedly *unsatisfactory* and the operation has been *condemned*." To emphasize his opinion, Bacon set part of his text in italics as it is here. So ended Jack's bright hopes. But his work did have value. In 1968 H. F. Schuknecht, M.D., wrote: "Jack had demonstrated that it was possible in some ears to remove the stapes without damage to the labyrinth, but it would be many years before the full significance of his observations would be appreciated."*

The Aural Surgeons and the Ophthalmic Surgeons were very cognizant that there were times when the Infirmary knew a scarcity of money. Much of its income came from large annual donations from the Commonwealth, lesser sums came from the income of its invested funds, occasional gifts, and house patients fees. The Managers husbanded these monies with probity and prudence that at times seemed to border on frugality. They saw their charge to the charity as one that would not allow for extras and frills. The Surgeons, with what they felt were legitimate needs for examination and operating equipment, often chafed under the economic restrictions placed upon them. For the Aural Service, this came to an end in 1893 when friends of the Infirmary established the Aural Surgeon's Fund. Originally the fund consisted of 21 shares of American Bell Telephone stock valued at $4,179. Clarence Blake was the sole trustee. The purpose of the fund was to provide an annual income for the Aural Surgeons to expend in the purchase of instruments, appliances, books, and such other objects as the Aural Staff might desire to have for the use of the Aural Depart-

*Schuknecht has written a full study of Jack and his pioneer work in stapedectomy. See Schuknecht, H. F. "Frederick L. Jack (1861–1951)." *Archives of Otolaryngology* 87:328–32, March, 1968.

ment. From 1893 until October 1897, they spent the following: Instruments — $1,237.20; Books — $170.65; Furniture — $86.14; Pictures — $91.85; Sundries — $92.55; Total — $1,678.39. Only a portion of the income was spent each year, the balance went back into the fund to purchase more stock. By 1900 the fund held 53 shares of telephone stock with a value of $8,109; the annual income was $375. That year Clarence Blake asked to be relieved of the responsibility of being sole trustee. The fund was transferred to the Infirmary Treasurer, with the Board of Aural Surgeons retaining absolute control over the expenditures.

Some have said that they once heard that the Friends of the Infirmary who established the fund was really one man, Clarence Blake. And there are others who say they heard that Alexander Graham Bell did it out of gratitude to the Infirmary for services he knew there with Blake in 1874–75. *There is absolutely nothing in the records that gives any support whatsoever to either claim; both are nothing but bits of pleasant oral tradition.*

When the Aural Service moved into its separate "Aural Infirmary" in August 1891, Clarence Blake prophesied that it would serve the purpose for some time to come. Four years later, in 1895, the total inadequacy of that building and the main Infirmary building to accomodate the increasing number patients became manifest. Now Blake wrote that his outpatient department was greatly overcrowded. There were difficulties in preventing sepsis due to the mingling of patients who should be classified but were not, due to great over-crowding because of lack of room for thorough examination. He had a need for a larger clinic room, a room for hearing tests, a room for clinical instruction, and a room for minor operations, freeing the regular operating room for serious procedures. The Annual Report states: "The present building was built nearly fifty years ago. It is an old patched building, entirely inadequate to meet the demands of the community, and it does not provide the necessary facilities for modern treatment. The situation is no longer good, as the street has become a noisy thoroughfare." In 1896 there were 1,197 patients treated in the wards, 20,904 new patients treated in the outpatient clinics, the total number of outpatients — that is, new patients plus their return visits — was 61,479. After careful consideration and examination, the Managers became satisfied that a new hospital was a necessity. They bought land from the Massachusetts General Hospital at the corner of Charles and Fruit Street. The Legislature provided money, benefactors were found, an architect engaged, and construction begun that resulted

in a new hospital ready for use in March 1899. Seventy-five years, lacking a few months, had passed since that October day in 1824 when Reynolds and Jeffries had opened their one room dispensary, the Boston Eye Infirmary, in Scollay's Building.

What had happened to otology in the Infirmary in that time? Something can be learned by comparing the 1828 report of Reynolds with the Annual Report for the year ending September 30, 1898, the last full year in the old building. In 1828 Reynolds and Jeffries were the only Surgeons. Their dispensary received patients three afternoons a week for one hour each day. There were no beds for the patients. The Surgeons did all treatments and dispensed all drugs, and 98 aural patients were seen.

In 1898 the Aural Staff numbered four Aural Surgeons, two Assistant Aural Surgeons, two Aural Clinical Assistants, and one Aural House Officer, total nine. The four Surgeons each served for one quarter — three months — a year. They were all equal in power, each was responsible for all the clinical and surgical business of his quarter's service. There was no Chief-of-Service. The Assistant Surgeons and the Clinical Assistants served for longer periods, usually six months, divided so they would know time with each of the senior Surgeons. The Aural House Officer had a full-time appointment of two years. The only member of the Staff to receive compensation, he was paid $50 a year plus room and board. Later this was raised to $100 a year to bring his salary in line with what was earned by the Ophthalmic House Officers.

The 1898 Annual Report tells us that in the year there were 1,232 ear operations performed in the Infirmary, and that 324 patients were in the Aural Wards with an average stay of 20.04 days at a cost of $11.44 per patient per week. In the Aural Out-Patient Clinic, 18,040 patients were seen. This last figure is almost 200 times the number of aural outpatients seen by Reynolds and Jeffries in 1828.

As for education, it is certain that Reynolds and Jeffries had no regular students in 1828. In 1898 ". . . the educational value of the Infirmary could not be overestimated." In addition to the House Officers, ". . . the Aural Service and the Ophthalmic Service were the sources of medical education for diseases of the eye and ear for doctors and medical students of New England. There were daily clinics for students in the wards." Nurses were being carefully trained and made thoroughly familiar with their role in the treating of diseases of the eye and ear.

And had the purpose of the Infirmary changed? Reynolds and Jeffries began the Infirmary as an ". . . institution designed for the

benefit of the poor who are not able to procure relief elsewhere." In 1898 the Annual Report reads: "All these patients (59,447) were poor and they came from all over the State. More than one-half the large number of house patients treated (1,420) were too poor to pay anything for their treatment. Only one hundred and thirty-six were able to pay the maximum charge of six dollars a week." The Infirmary was still the Massachusetts Charitable Eye and Ear Infirmary in fact as well as in name.

AURAL STAFF APPOINTMENTS
1867–99

The names are in alphabetical order. Whenever possible the life dates of the men are given. The dates of the appointments are taken from the Minutes of the Meetings of the Board of Managers. This means that the dates are of the Meeting when the appointment was made or terminated. Each man's full term of service at the Infirmary is given. The names of men who knew appointments as Ophthalmic and Aural Internes are not given. The majority of these men chose later to have careers in ophthalmology, not otology. For appointments prior to 1867, see pages 78–80.

Amadon, Alfred Mason (1867 – 1915)
Aural Interne — October 29, 1896–May 4, 1897
Aural House Officer — May 4, 1897–February 1, 1898
Aural Clinical Assistant — October, 1904–October, 1906
Assistant Aural Surgeon — October, 1904–October, 1913

Amberg, Emil
Aural Interne — October 28, 1896 – 1897 (?)

Blake, Clarence John (February 23, 1843–January 29, 1919)
Aural Surgeon — November 1, 1870–August 1, 1905
Consulting Surgeon — October 26, 1905 — Died — January 29, 1919

Bryant, William Sohier (May 15, 1861–1957)
Aural Externe — October 25, 1888–October 30, 1890
Aural Clinical Assistant — October 30, 1890–May 2, 1893
Assistant Aural Surgeon — May 2, 1893 — Resigned — October 29, 1896

Coghlan, John H.
Aural House Officer — February 7, 1899 – 1901 (?)

Crockett, Eugene Anthony (October 22, 1867–June 13, 1932)
Aural Interne — May 5, 1891–May 2, 1893
Aural Clinical Assistant — May 2, 1893–February 2, 1897
Assistant Aural Surgeon — February 2, 1897–October 27, 1904
Aural Surgeon — October 27, 1904–February 12, 1913
Chief of Aural Service — *Aural Chief of Service* — February 12, 1913–February 12, 1913–October, 1924
Consulting Surgeon — October, 1924 — Died — June 13, 1932

Green, John Orne, Jr. (June 7, 1841–January 5, 1922)
Aural Surgeon — August 7, 1888–August 2, 1904
Consulting Surgeon — August 4, 1904 — Died — January 5, 1922

Hammond, Philip (December 4, 1871–February 7, 1937)
Aural Interne — May 2, 1893–March 13, 1896
Aural Clinical Assistant — March 13, 1896–May 2, 1899
Assistant Aural Surgeon — May 2, 1899–October 26, 1905
Aural Surgeon — October 26, 1905–February 3, 1920
Chief of Aural Service — February 3, 1920–October, 1932
Consulting Surgeon — October, 1932 — Died — February 7, 1937

Jack, Frederick Lafayette (January 3, 1861–May 3, 1951)
Aural Externe — November 6, 1883–December 1, 1887
Assistant Aural Surgeon — December 1, 1887–December 2, 1896
Aural Surgeon — December 2, 1896–February 12, 1913
Chief of Aural Service — *Aural Chief of Service* — February 12, 1913–June 9, 1918
Consulting Surgeon — October 30, 1919 — Died — May 3, 1951

Jeffries, Benjamin Joy (March 26, 1833–November 21, 1915)
. . . to attend to diseases of the ear as well as the eye — February 12, 1867–February 11, 1868
Ophthalmic Surgeon — February 11, 1868–October 31, 1901
Consulting Surgeon — October 31, 1901 — Died — November 21, 1915

Morse, Henry Lee (November 18, 1852–September 7, 1929)
Aural Externe — August 5, 1884–December 1, 1887
Assistant Aural Surgeon — December 1, 1887–December 2, 1896
Aural Surgeon — December 2, 1896 — Resigned — October 30, 1902

Plummer, Edward Maverick (September 25, 1856–January 3, 1924)
Aural Externe — October 25, 1888–October 30, 1890
Aural Clinical Assistant — October 30, 1890–February 2, 1897
Assistant Aural Surgeon — February 2, 1897–October 30, 1902
Aural Surgeon — October 30, 1902–October 26, 1912
Consulting Surgeon — February 12, 1913 — Died — January 3, 1924

Shaw, Henry Lyman (September 19, 1838–April 2, 1911)
Assistant to the Surgeons — October 18, 1861–February 2, 1864
Surgeon — February 2, 1864–November 4, 1871
Ophthalmic and Aural Surgeon — November 4, 1871–October 1888
Ophthalmic Surgeon — October 1888–November 28, 1893
Consulting Surgeon — February 6, 1894 — Died — April 2, 1911

Spear, Edmund Doe, Jr. (October 27, 1852–December 25, 1916)
Aural Externe — November 5, 1878–November 6, 1883
Assistant Aural Surgeon — November 6, 1883–February 7, 1888
Aural Surgeon — February 7, 1888–October 29, 1896

Webster, George A.
Aural Clinical Assistant — February 2, 1897–August 21, 1901
Assistant Aural Surgeon — August 21, 1901–October, 1913

Willard, Robert (December 8, 1838–February 6, 1892)
Assistant to the Surgeons — October 21, 1865–February 18, 1868
. . . *surgeon for treatment of diseases of the ear* — February 11, 1868–November 4, 1871
Ophthalmic Surgeon — November 4, 1871 — Died — February 6, 1892

White, Leon E. (July 30, 1867–May 18, 1928)
Aural House Officer — December 17, 1896–May 3, 1898
Aural Clinical Assistant — May 3, 1898–May 31, 1905
Assistant Aural Surgeon — February 2, 1913–October 1924
Aural Surgeon — October, 1924 — Died — May 18, 1928

★ 5 ★

Of Servants and Domestics, of Matrons and Superintendents

I

"The child came here in a miserable condition. Is an orphan living with an aunt. Came here without a change of clothing and her head covered with lice." So wrote Assistant Surgeon Robert W. Hooper in the case record of this worthy object of the Infirmary's charity. Dr. Hooper initiated treatment of the little girl's purulent conjunctivitis and then entrusted her to the care of the servants of the house. In the weeks to come he would know the child for a few minutes of each of his daily visits; the servants would live with her day and night. They provided her with adequate clothing, bathed and fed her, cleared her head of lice, risked infection from her, and acted as surrogate mother. This was routine for them, this was their duty as servants of the house of the Massachusetts Charitable Eye and Ear Infirmary.

In the year of this case — 1838 — the public health facilities and programs of the Commonwealth were not adequate to carry the burden of the care of the sick-poor. It was the attitude of the times to expect private charities to assume much of the responsibility. The Infirmary, one of the private charities, met its charge by a division of labor. Its Managers concerned themselves with the legal and financial problems and the overall supervision of the charity; the Surgeons treated the sick-poor in the clinic and in the house; while the servants cared for them once they were admitted as patients. The servants also took care of the day-to-day running of the house with its routine chores and problems. Only the servants knew financial compensation.

The word "servant," as used in the hospitals of Massachusetts in 1838 and for many subsequent years, calls for an explanation. As used, it meant one who was a subordinate helper, one who worked under the direction of another. Thus the Matron of the Infirmary, a person of importance and talent, was a servant, for her role was subordinate to that of the Managers and Surgeons. She worked under their direction and received orders from them. The other house workers, no matter their skills or assigned duties, were also servants, because they were subordinate to the Matron and took orders from her. The term was used to denote rank and

degree of responsibility, not social status. Today we use the word "employee."

The Managers and Surgeons of the Infirmary were men of substance. In Boston, they and their families had long been known. Detailed accounts of their way of life and their lives have appeared in published histories and biographies. They revealed their personalities in their writings. Thus much can be learned of them. Not so with the servants of the Infirmary. If one of their names appeared in print, it would be in a brief obituary on the back page of some newspaper. To use a term of the times, they were of the "lower orders." In records of the Infirmary, only three or four of them emerge with any sort of personality. Most of them are only names on the quarterly payrolls. So, in spite of their importance to the Infirmary, little can be written of them as individuals.

The first servants of the Infirmary were hired in 1837 to work in the newly purchased house on Green Street. They numbered three — Mrs. Mary H. Homer, the Matron; Sarah Rafaty, the cook; and Sarah Ann Conley, domestic. Mrs. Homer's yearly wages were $250, Sarah Rafaty's $95, and Sarah Ann Conley's $88. They were paid quarterly. Receipts for their wages show that Sarah Rafaty and Sarah Ann Conley were illiterate, they used an "X" for their signatures. Mary Homer, who by all accounts was an extraordinary woman, penned her signature with difficulty. Illiteracy and semiliteracy were common among the skilled and unskilled workers of the nineteenth century. As late as 1895, the Superintendent of the Infirmary noted that one of the head nurses, a valued and long-term employee, was illiterate.

As was the custom in similar institutions, the Infirmary servants lived in the house and received their meals there. By reason of her position, the Matron had an apartment for herself and her family. All the employees worked a full 10- to 12-hour day and could expect to be called at other times for special service. The two lower servants had to obtain the permission of the Matron to leave the house. She, in turn, before she could leave for any period of time, had to have permission of the Managers.

The servants' duties were manifold. Provisions had to be bought, meals prepared and served, linen laundered, dishes washed, floors scrubbed, fires made, water brought in from the wells and cistern, the grounds kept in order. And always, always there were the patients to be nursed and cared for, and the clinic and operating room to be kept clean.

For the first year at Green Street, there was a House Physician,

John Homer Dix, M.D. He bought the medical and surgical supplies, kept the records, and supervised the care of the patients. When he left, Mary Homer assumed all those responsibilities. Until 1849, when a houseman was employed for the first time, she and two women did everything that needed to be done to keep the Infirmary an efficient health care center and charity. The Managers knew they had a jewel in Mary Homer. They raised her salary to $300 a year and then to $400. In addition, each year they voted her a donation of $50. When her husband died in the house, they voted to pay his funeral expenses. Knowing that Mary had difficulty in writing and keeping records, they hired her son Henry to keep them for a $50 yearly stipend. Reynolds, in his 1850 public address, devoted more time and words to her and her service than he did to that of his two fellow Surgeons, Hooper and Bethune.

> *. . . the Matron of this Establishment, has for many years, with great self-denial, and abounding toil, manifested a wisdom in action; a patience in trial; and a kindness in manner, that has rendered her influence second to none in the promotion of the Infirmary's benevolent ends. The Surgeons and Managers, the only witnesses of her untiring devotion to the welfare of thousands who in this humble Charity, have been the objects of her care; of the sound judgement manifested under the peculiar trials inseparable from the situation; of her gentleness and firmness to the worthy and the unworthy; and of the Christian spirit always brought to her difficult task, will bear witness to her merit. The world will know little of the many trials or of the noiseless triumphs of her lot. But if the cup of cold water given in kindness in not to be forgotten, she will receive her reward.*

No future servant of the Infirmary would know such public praise.

The Managers showed their faith in Mary Homer in another way. When they opened their new house in 1850, they adopted a set of regulations that provided for a Superintendent. Although the holder of this office is referred to as "he" throughout the pertinent article, Mary was chosen for the position. She became Superintendent and Matron of the Massachusetts Charitable Eye and Ear Infirmary; she was made an officer of the Infirmary.

The new regulations called for general supervision to be vested in a Visiting Committee, which consisted of two Managers so that one Manager would go out each month. The Visiting Committee went to the Infirmary once a week. They visited the wards and

every room with the exception of the sleeping rooms of the Superintendent's family. They examined the list of patients and saw each of them, if practical. Every part of the establishment was carefully examined to ascertain if the officers and attendants were fulfilling their duties faithfully and humanely. They approved the patients admitted, and, if a charge had been made for board, they determined if this figure was fair. They approved all expenditures.

An Assistant to the Surgeons was appointed. His duties called for him to be in attendance daily at the Infirmary, to prepare medicines, to cup, to apply leeches, and to perform such duties as the Surgeons directed. He had the care of all drugs, medicines, and surgical instruments; and he purchased all medicines and leeches. When necessary, he gave assistance to the Superintendent in the keeping of the accounts.

As for the duties of Superintendent and Matron Mary Homer, the general care of the building and grounds was hers. She made all purchases of provisions and supplies, she was responsible for their safekeeping and economical use. She collected the money the patients paid. For these transactions she had to keep a true and exact record. As for the attendants and servants, she had the power to hire and discharge, to direct their work, and "particularly to see that they were kind and attentive to the patients, obedient to the directions of the Surgeons, and decent, moral, and sober in their deportment." She had the general care and supervision of the patients, was responsible for their welfare and comfort, and had full authority for the preservation of discipline and order. Mary Homer had her hands full.

This is a good place to comment on the Superintendent and Matron of the Massachusetts General Hospital. According to the hospital's 1846 regulations, the Trustees were to employ a qualified man and wife, the man to serve as Superintendent and his wife to assist him and to serve as Matron. He would receive compensation, she would not. Their living quarters and meals were to be provided.

By January 1851 the Infirmary, in its new building and under its new regulations, was functioning in excellent order. The servants were: Thomas Roach, $48 a quarter; Susan Blake the cook, $32.50 a quarter; Bridget Rehill, $22.75 a quarter; Ann Blake, $19.50 a quarter. They ate their meals in the Infirmary — the same diet as the patients — and slept in rooms in the attic. From time to time, a laundress would be hired to wash sheets at 25¢ a pair, and outside help was used to wash windows and do heavy housecleaning. According to the visiting Committee's ledger, the patients

under the care of Mrs. Homer and the servants on January 9, 1851 were:

	Paying	*Free*	*Total*
Americans	*1*	*9*	*10*
Foreigners	*1*	*11*	*12*
			22

Males — 13 *Females — 9* *Total — 22*

There were beds for 30 patients.

Next to Mrs. Homer's parlor on the first floor of the Infirmary was a room that was used as a chapel on Sundays; it remained empty much of the rest of the week. It was there because the majority of the Managers and Surgeons were men of deep religious convictions. They regarded their service to the Infirmary as a religious duty. The sick bodies of the worthy poor were theirs to care for; and, as some of them saw it, it was their duty to care for their souls as well. In the late 1830s, they made arrangements for a chaplain to visit the Infirmary and to conduct services every Sunday. The servants and ambulatory patients were expected to attend. A look at the roster of the servants and patients shows that many of the names were Irish. Could these people, probably Roman Catholics, by a rule of the house, have attended Protestant services in days long before ecumenism would have made such attendance unnewsworthy? The only evidence that this could have happened is an entry made in the ledger of the Visiting Committee on March 4, 1855: "Mr. G. H. Shaw visited the Infirmary this Sunday — all the able bodied pts. were attending divine services in the house." The chaplain was the Rev. Stephen G. Deblois. The Managers so appreciated his voluntary service that they presented him with an enduring memorial of their regard, a suitable piece of silver plate. The Rev. Mr. Deblois resigned after nearly 18 years of service. By the close of the Civil War, there was no longer a regular chaplain. The chapel was converted into an examining room.

Mary Homer's devotion to the Infirmary took a most unusual form in October 1853. The previous August, the Managers had increased her salary from $300 a year to $400, with the raise to be retroactive to July. She had her son Henry write to them and ask them that her new salary start in October, not July. Thus, for reasons that are hard to understand today, she sacrificed three months of her raise.

In the records her name appears next in the ledger of the Visiting Committee. The entry for June 1, 1854: "The Matron was on a visit to Duxbury which it is hoped will improve her health." And again her name, this time for the last time, in the Board of Managers Minutes for November 8, 1854: "Voted — Whereas it has pleased our Heavenly Father to remove by death Mrs. Mary A. Homer, for seventeen years the faithful, efficient, and devoted Matron and Superintendent of the Massachusetts Charitable Eye and Ear Infirmary, the Managers feel it to be a duty to place on record this testimony of their esteem of her many Christian virtues, and their deep regret at the loss the institution sustains by her departure. Voted, that the funeral expenses be defrayed by the Institution and that the salary of the late Superintendent be paid until the close of the present quarter, ending January 1855."

The first Matron and the first Superintendent of the Infirmary is a shadowy figure. What indeed was her name? In some of the records, it appears as Mary H. Homer and in others as Mary A. Homer. When was she born, where was she born, who were her parents? Not known. On what day did she die? Not known. Her husband predeceased her. Two of her children are known by name, a son Henry and a daughter, Mrs. Lovejoy, who presented a portrait of her mother to the Infirmary. Semiliterate, Mary Homer wrote nothing that would reveal her personality or her thoughts. The flowing, orotund words, spoken so sincerely by Edward Reynolds in 1850, are almost all we have to tell us of this good and devoted woman and of her contributions to the Infirmary.

II

As Mary Homer is a shadowy figure, so her successor, Mrs. Martha E. Temple, is a still more shadowy figure. Here is all that is known of her and her tenure.

She was elected Superintendent and Matron on November 16, 1854, at a salary of $300 a year. Two years later, this was raised to $400. Her records, which she kept herself, were always in order. Incidently, at about this time the term "servants" began to disappear from the records to be replaced by the term "domestics." A domestic was any employee in the house other than the Matron. Her employers were pleased with Mrs. Temple. They ". . . witnessed with great satisfaction the perfect quiet and regularity among the patients and domestics which was strong proof of the judiciary care and management of the Matron."

They used quite different words two years later when they found the institution *not* in a good condition. The Matron was absent and had been absent without leave for five weeks. The President, Dr. Solomon D. Townsend, made inquiries. As both an employer and as a physician, he looked at Mrs. Temple. When the Board met next, he asked his fellow Managers to be patient, telling them that Mrs. Temple's niece was taking temporary charge and that, sick as she was, Mrs. Temple would do what she could to keep the house in good order. On October 20, 1857, Mrs. Martha E. Temple died. There was no vote to pay the funeral expenses. Nine days after Mrs. Temple's death, Miss Mary E. Grace was appointed Superintendent and Matron. Mrs. Temple's term of service had been a little less than three years.

III

The Infirmary records of the 1850s do not always give precise information. The case of Miss Mary E. Grace is an excellent example. As noted, she was elected Superintendent and Matron on October 20, 1857. Two years later, November 2, 1859, Mrs. Mary G. Watson was elected Superintendent and Matron. Scattered evidence in the records and a comparison of handwriting and signatures has led to the conclusion that Miss Mary E. Grace and Mrs. Mary G. Watson were the same person. Here the name of Mrs. Mary G. Watson will be used.

As Matron, Mary Watson was in charge of all nursing services in the Infirmary. By the standards of the time, she must have been a competent, even a skilled, nurse, otherwise she would not have been appointed. In 1857, the year of her appointment, there were no schools of professional nursing in the United States. Nurses such as Mary often obtained their training by working with older women. In Mary's case, it was her mother. In the case of the niece of Martha Temple, it was the aunt, Martha Temple. Some women gathered skills by working for periods of time in hospitals or under the supervision of doctors whose private patients they cared for, and other women learned by doing at home as they cared for the sick members of their families.

The skills they acquired were used mainly for the personal care of the patients, not his medical care. Temperatures were not taken, the hypodermic needle was yet to be introduced, sedatives and tranquilizers were limited to measured doses of whiskey or brandy, medicines were given by the spoonful or the pill according to a

schedule determined by the doctor. When there was an operation, male nurses were usually the assistants, not female nurses. What the average nurse had to do was keep the patient and the patient's bed clean, prepare the correct food and make certain it was eaten, and, most importantly, provide a quiet atmosphere and an understanding and sympathetic personality. The Managers insisted on this last quality; their regulations called for all in the house to be "kind and attentive to the patients." It was Matron Watson's charge to see that she and her staff behaved accordingly.

The most important record that was kept by Mary Watson and the previous Superintendents and Matrons was the *Cash Book*. The ledger that is preserved in the Infirmary Archives covers the period of August 8, 1837–April 20, 1868. Knowing the vast complex of men and women, machines and computers, and the miles of paper necessary to record today's transactions of the Infirmary, it is a profound surprise to learn how simple things were in those days. On four pages, one for each quarter, are all the facts and figures of the house business of the Infirmary and the payroll for a year. Mary Watson's entries are more detailed than those of her predecessors and thus are more fruitful for a study of the hospital management practices of the time.

Mrs. Watson's entries show that she arranged for regular services concerned with the upkeep of the property to be done by contractors on a quarterly or yearly basis. She had Levi Chadbuck keep the ranges and furnaces in order. J. J. Beal & Co. came in each quarter to clean and adjust the clocks. She gave Michael Gormley a yearly contract to take care of the grounds and gardening. L. W. Dunbar did the necessary carpentering, W. H. Emerson the painting and glazing. And Benjamin Jones got $10 a year to water the street. Quarter after quarter, year after year, these men's names and the sums paid to them appear in the *Cash Book*. If Mrs. Watson was pleased with a service, she did not change her contractor.

The same philosophy governed her business with the vendors she used. For years she bought fish from F. Snow and Co., provisions from Wm. Spurgen, wood from Wm. Wood, milk from J. H. Blodgett, whiskey and brandy from Silas S. Pierce, bread from Wm. Pike, and flour and meal from L. G. Bowlder. Only a major breach of trust would cause her to change vendors. Such a breach occurred in the summer of 1858 when C. D. Cobb passed on to her a counterfeit $10 bill. She changed to another grocer and Mr. Cobb lost a $350 yearly account. Upon receiving cash from the Treasurer, she settled with her contractors and vendors each

quarter. By 1867 she was disbursing, exclusive of the payroll, an average of $8,000 a year.

Much of the food and health supplies she bought in bulk: soap by the barrel and butter by the tub, wood by the cord and coal by the ton, potatoes by the bushel and charcoal by the basket, dry-goods by the yard and fish by the quintal. To preserve the perishable items, she spent $23 a year for ice. The drugs and surgical supplies were bought by the Assistant to the Surgeons or the Surgeons, although Mrs. Watson kept the accounts of such purchases and paid the bills. By far the most expensive single item in this portion of her budget was that of leeches: An average of $150 a year was spent for them.

When Mary Watson assumed her duties as Superintendent in 1857 there were four domestics in the house — one male and three females, a yearly payroll of the order of $520. Some of the light work in the house and on the grounds was done by ambulatory patients.

The Managers, through their Visiting Committee, routinely concerned themselves with the welfare of the patients. When the gentlemen made their weekly visits to the house, they were required by the rules to see each patient and determine the quality of the care and treatment each was receiving. Only the annual housecleaning, which took place every April, or the upset due to major repairs, would deter them from their duty. From what the patients told them and from their own observations of the state of things in the house and of the accounts, they knew how well Mrs. Watson and her staff were providing for the patients. They would note their findings in their ledger for all to read. Only once is there an entry critical of Mary Watson's management. On July 8, 1865, the Ledger reads: "Dr. Townsend visited the house, saw all the patients, found the men's ward in a very slovenly condition, beds tumbled & the bedding not clean." On every other occasion — no exceptions — the Visitor would note that the "house seemed to be in good order," "excellent order," "very good order," "very nice order." On April 19, 1865, Mr. Sturgis was pleased to note: "The entrance was draped in black in mourning for the funeral of our beloved President."

Mrs. Watson could discharge a patient for smoking in the house or for disorderly conduct, but there was little she could do when a Surgeon upset the orderly running of her domain. A case in point was George A. Bethune, M.D.: "Dr. Bethune was always accompanied by a large dog, who on his arrival at the Infirmary was

The Ophthalmic Out-Patient Clinic at the turn of the century. The bearded man in the left background is Mitchell Dearborn.

always deposited, sometimes forcible, under a large wooden bench that occupied one side of the reception room. It happened that this room was occasionally used for operating purposes. The dog had a rooted aversion to ether, and its fumes would generally cause him acute nausea. The attendant sounds would act as a disturbing element during the operation. For some reason the owner judged it desirable to have this dog's tail cauterized several times in the course of the winter. Each year there presented himself the same little bald-headed, red-faced feeble old man to whom the operation was confided. He entered the house as a patient and remained through the season."

As noted, it was the custom at the Infirmary, and at similar institutions, to use ambulatory patients as a part of the work force. From among such patients, once they were cured, it was also the custom to recruit permanent workers. One such patient who became a domestic at the Infirmary was Mitchell A. Dearborn. His name appears for the first time on the payroll on July 18, 1866.

Dearborn's eyes had been injured in an accident in a logging camp. In spite of the efforts of the Infirmary Surgeons, his vision was never very good. This did not handicap him a great deal. Prior to the appointment of a regular Apothecary, it was Dearborn who put up the medicines. Visions of a possible inquest might have often flitted through the Surgeons' brains when they heard an order given for a solution of atrophine and Dearborn would make up the prescription. Yet the Surgeons admired the man, referring to him as "our excellent and faithful Mitchell Dearborn." He worked side by side with them in the clinic and the operating rooms. He became so skillful, that when requested, he could correctly advise the younger attending Surgeons on how to treat problem cases. The Superintendents he served relied on him, adding to his responsibilities and raising his salary as often as they could. Over the years, he rose to the rank of Supervisor and his name and title appeared on the Infirmary roster in the Annual Reports. In 1908 the Managers showed their appreciation of his faithful and honorable service by voting him a purse of $300 in gold. When Mitchell Dearborn died in 1916, he bequeathed to the Infirmary what might have been his life savings — $3,000.

Such employees as Dearborn were rare indeed. As a rule, the longest time a domestic stayed at the Infirmary was no more than five years. The pay was low, the hours long, the diet monotonous, the living quarters cramped, the work demanding and unpleasant, and there was always the danger of infection. They had little privacy; they were restricted in their coming and going from the house, and also where they spent their leisure time. There were too many people to please — the patients, the Managers, the Surgeons, and Matron Mary G. Watson.

By the standards of the time, Mary Watson was a competent housekeeper and nurse, Matron and Superintendent; she was businesslike in the management of the house and considerate of the domestics and patients. Some evidence that all might not have been as desired is found in the fact that after 1860 her yearly salary was not increased above $400. During the 1860s and into the early 1870s, the salaries of the domestics were increased by at least a third, perhaps in response to the inflation of the Civil War and its aftermath. Mary's remained the same, although the number of patients under her care doubled and the number of domestics she supervised doubled as well.

Whether she knew it or not, there was one who did not view her service with kindly eyes. Hasket Derby, M.D., wrote: "The

administration was most primitive, the matron in connection with a cross-eyed cook of uncertain temperment running the establishment." Derby, the other Surgeons, and the Managers had in Boston two excellent examples of how hospitals should be operated — the Carney Hospital with its staff of trained professional nurses and the new Boston City Hospital with its excellent administrative staff. Looking at these institutions, it was obvious that if the Infirmary were to be brought into the mainstream of medical care, it would be necessary to have a medical superintendent to take the reins of administration and to install a corps of trained nurses. Derby, for one, set out to bring about these basic changes.

By the time the 1870s began, the Surgeons were urging the Managers to agree to accept certain changes that had been introduced into medicine and surgery. More attention was to be given to the general physical condition and hygenic surroundings of the patients. It had been learned that a very large proportion of the diseases of the eye and the ear were attributed to a reduced general condition of the patient, growing out of insufficient nutriment, bad air, and improper living. In the treatment of such cases, surgical skills were of little use unless the operation was supplemented by a period of generous diet and the enforced obedience to sanitary rules. If this were not followed, the patients would be back in a few months with a recurrence of the diseases and the treatment would have to be done again. Better to treat a few right, than to treat many and know only partial alleviation. The Managers came to agree and ordered that the Surgeons were to be allowed to use their discretion in continuing certain cases in the Infirmary and in ordering stronger and more nourishing food. The implementation of the new program within the house was to be the task of Mary Watson. She was not prepared to accept the philosophy: It was not what she had been trained to do.

It was a deeply disturbed Board of Managers that met on November 5, 1872. The number of patients presenting themselves for treatment that year would total 5,975. If the yearly rate of increase continued, in a decade there would be 10,000 patients a year. The Treasurer reported that there was a deficit of $2,480. To meet this deficit and the anticipated future deficits by drawing on the fixed investments was an impossible idea. If the Infirmary was to survive, more money was needed from the state and from private donations, and economies would have to be effected in the house. The Treasurer was instructed to apply to the legislature for a grant of $10,000 for the coming year, an increase of $4,000. A committee of three

was appointed to examine the expenses of the Infirmary and to report a plan to reduce them. Mrs. Mary G. Watson, as Superintendent and Matron, controlled all salaries and house expenses, fully 80 percent of the budget was hers. The committee of three turned to her. She did her best.

The report Mary Watson submitted to the Committee is the only such detailed report from a female Superintendent and Matron we have. Handwritten on plain lined paper, it is a most revealing document. The disjointed nature of the text leads to the conclusion that the copy in the Archives may be incomplete. What we have is a simple straightforward story told by a dedicated but unimaginative woman, hardly the sort of thing that men such as Augustus Lowell, Esq., Edward H. Clarke, M.D., and Robert W. Hooper, M.D., would regard as businesslike.

She began by listing the domestics; there were ten of them, three males and seven females. The highest wage paid was $25 a month to Mitchell Dearborn, the next highest was $16 a month to the female cook. The lowest wage was $12 a month to a maid. Her monthly payroll for the domestics was of the order of $165. Could she cut the number of domestics? She thought she could dispense with the service of one man, but the wants of the Surgeons required the presence of an attendant while making their visits. She could not in fairness reduce the number of female servants. Their work load was already too great. Each morning all the floors had to be swept, the beds made, and everything put in readiness for the Surgeons before 9 o'clock. All the floors were scoured weekly or oftener. The walls were scoured and kept clean. There were at least fifty pairs of sheets to be washed each week, besides the towels and other toilet articles. All the patients' clothes were washed and mended, and the whole service of the house was kept in good condition. At one time she could call on the patients for extra work, but now the Surgeons forbade that, even the picking of lint. There were five furnaces and the entry stove to be looked after in the winter. She did all the sewing in the house, aided by one of the maids who acted as seamstress. And there were 40 beds that were nearly always full. "Many of them occupied by a class of chronics and miserables that remained on hands for months, patients called in the language of the Infirmary 'drones.' " No, she needed every domestic she had.

Could economies be effected in the food budget? She thought not, for "of late years changes had been made by the request of the Surgeons in the diet, substituting mutton for beans on Sunday

and butter twice a day in place of molasses." The butter bill for the year was $101.95. Her diet and that of her family was the same as that of the domestics and patients with the exception of an occasional roast beef on Sunday. There were no food luxuries. "The domestics were allowed strawberries twice in the Summer and sometimes other fruit, but for the Matron's family any fruit purchased was at her own cost."

Note that Mrs. Watson writes of the Matron's family. When she was appointed she was Miss Grace; two years later she was Mrs. Watson. Since that time, she had had children; and they, perhaps along with the father and husband, lived in the Infirmary in the Matron's apartment and had their meals there. Her mother, who for a long time was one of the chief nurses at the Massachusetts General Hospital, would often be called in during emergencies, such as sickness or illness of the children, or in the absence of the Matron; and her services had always been gratuitous.

Mrs. Watson included in her report an explanation of the hiring and firing of a young girl. She had taken the girl in at the desire of a friend to "save her from evil ways." The girl had misbehaved and was discharged, but on writing a pathetic appeal and promising to do better, she was taken back. Things did not work out; the girl was discharged a second time for gross insubordination.

The entire document is defensive in nature. Perhaps Mary Watson sensed that it had to be, that she was of a vanishing class of hospital worker. Such institutions were changing, medicine was changing, nursing care was changing, and a new type of management worker was needed. The Managers read her offering and reluctantly decided she could not adjust; they planned accordingly.

They did not act in haste. Nine months were allowed to pass. And then at their Annual Meeting in November 1873, they announced that Dr. A. N. Blodgett was appointed Assistant and Superintendent with a salary of $500 a year and that Mrs. Mary G. Watson was rechosen Matron with the same salary as last year. In the regulations, there had always been the two positions—Superintendent and Matron. Mary Homer, Martha Temple, and Mary Watson, all had held the titles and responsibilities of both positions. Now Dr. Blodgett would be Superintendent and Mary Watson would be the Matron. Much of the authority and prestige that she had known for 16 years was taken from her and given to Blodgett.

The new regulations gave to the Matron the care of the rooms and the furniture of the Infirmary. She was responsible for the safekeeping, economical use, and expenditure of provisions and

stores. She could hire and discharge all female domestic servants and pay them by the order of the Superintendent. When the Superintendent was absent, she had full authority over the inmates and was responsible for their behavior and care. She was to keep accurate accounts for her department. Mary Watson's responsibilities were now largely those of a housekeeper.

As for the Superintendent, he had general charge and oversight of the Infirmary. He made all purchases of provisions, stores, medicines, and clinical supplies. The admission of patients and the assignment of beds was his to do. All monies were received by him; all records were kept by him. He was to hire, oversee, and direct all the nurses and men servants in and about the building. These things he did under the direction of the Visiting Committee.

Albert Novatus Blodgett, M.D., was twenty-five years old when he accepted his appointment. He had taken his M.D. degree from Harvard Medical School. Additional training was his from his service as Surgical House Officer at the Massachusetts General Hospital and as Physician at the House of the Good Samaritan. In the early weeks of his appointment, he also held the appointment as Assistant to the Surgeons. This post was soon abolished at the request of the Surgeons, and a new post — Ophthalmic and Aural Interne — instituted. The young men appointed to this post lived in the house at all times. Dr. Blodgett lived elsewhere. As Superintendent, he was expected to make one visit to the house every day after the visit of the Surgeons.

Mary G. Watson continued in her position as Matron for nine months. In August 1874 she presented her resignation to Dr. Hooper. The Secretary of the Board was instructed to communicate to her an expression of appreciation for her 17 years of service. No sooner was she and her family off the premises, than Superintendent Blodgett converted her apartment and parlor into wards. It is believed that her successor, Mrs. Eliza M. Whitford, was assigned a single room, although she did have her own table in the dining room. On that note an era ended when women were responsible for all the affairs of the house of the Massachusetts Charitable Eye and Ear Infirmary. From this date on, the Surgeons would have the Medical Superintendent they felt the Infirmary needed to be a first-class health care center.

★ 6 ★

Women of Proper Qualifications

The first document relating to women in any role, other than that of Matron or servants, at the Infirmary, is a letter dated September 29, 1871. It was addressed, quite correctly, to Dr. E. H. Clarke, President of the Board of Managers of the Massachusetts Charitable Eye and Ear Infirmary. It reads: "We the undersigned Students of Medicine, at the New England Hospital for Women and Children, no. 14 Warrenton St., desire permission to attend the daily clinic at the Infirmary." It was signed Sara E. Brown, Celia F. Low, and Mary Dubois.

Women — female medical students — were knocking at the door of the Infirmary and Dr. Clarke, for one, thought ". . . it would be alike mean and inexpedient not to give them a courteous hearing and the best answer."

This was not the first time female medical students had knocked at the Infirmary's door. In 1867 it was the custom at the Infirmary to give lectures to medical students every Thursday at 11 A.M. Two young women, Sophia Jex-Blake and Susan Dimock, students of medicine at the New England Hospital for Women and Children, asked to join the group and permission was given. On May 17, 1867, the same two young women wrote to the Trustees of the Massachusetts General Hospital asking leave to share the educational advantages of the MGH, especially the female wards. The Trustees referred the matter to the Visiting Committee and Mr. Samuel Eliot. Mr. Eliot turned to the Massachusetts Medical Society, then the principle watchdog of purity of medicine in Massachusetts, for the opinion of its Council on the expediency of admitting females as students to visit the wards of a hospital. The councilors, by a vote of 49 to seven, went beyond the scope of Eliot's request; they resolved that not only was it inexpedient to admit females to the hospital wards, it was also inexpedient to admit them to the medical schools of the state. Further, it was the concensus that women were not fitted to practice medicine by reason of their sex characteristics.

Word of the action of the Councilors of the Massachusetts Medical Society reached the Surgeons of the Eye and Ear, and they

wrote a letter to Sophia Jex-Blake. It reads:

Massachusetts Charitable Eye and Ear Infirmary
June 18, 1867.

Dear Madam,

The surgeons of the Infirmary are, at the same time, members of the Massachusetts Medical Society, and are bound to respect the opinion of its Councillors. And in view of the recent action of that Board, we are of the opinion that we cannot continue to allow female students to attend our cliniques. Ungracious as is the task, we therefore feel compelled to ask you to suspend your visits.

We have no hesitation in adding that our intercourse with yourself and companions had been throughout most pleasant to us personally.

Very truly yours,
Hasket Derby, for the Surgeons.

Jex-Blake's response was: "Those wise men of Gotham at the Eye and Ear think it 'the kindest and most gentlemanly thing' to shut us all out."*

She and Susan Dimock fared only slightly better at the Massachusetts General Hospital. There the Trustees chose to ignore the opinion of the Councilors of the Massachusetts Medical Society for they voted that Chapter 3, Article 3 of their rules and regulations could be interpreted to include female as well as male students; that the admission of female students was to be left to the discretion of the Visiting Physicians and Surgeons, individually; and that female students, whenever admitted, would be placed in classes separate from male students, and would attend the clinical practice of female wards exclusively. These limited privileges were allowed in spite of the protests of powerful members of the Staff.

Jex-Blake and Susan Dimock accepted instruction under these rigid conditions for eight months.

The Trustees at the MGH were not quite as liberal as a medical school in Castleton, Vermont, where once a few women were allowed to listen to medical lectures from behind a screen that

*There is a Mother Goose verse that goes: "Three wise men of Gotham/ Went to sea in a bowl,/ Had their bowl been stronger/ My song would be longer." I do not see the connection between this and the action of the Infirmary Surgeons. But Jex-Blake saw one.

separated them from the male students. The men received diplomas, the women did not.

The letter that Hasket Derby, M.D., wrote to Jex-Blake might tend to cast him in the role of an enemy of medical education for women. The exact opposite was true. He remained a good friend of Jex-Blake. At her request, he allowed her and three other women to attend his Harvard University lectures on diseases of the eye. In November 1867 the faculty had rejected the admission of women. Derby misunderstood the nature of the vote and felt he had a right to admit women to his lectures. The faculty promptly set him right on the matter and sent a committee to the President and Fellows of Harvard with the message that it was the wish "that females should not be allowed to attend lectures or receive any instruction at the Medical School under the present organization." It is believed that Derby's action in giving lectures to female medical students — he was the only one at Harvard to do so — was one factor that cost him the professorship of ophthalmology when the chair was created at the close of 1871. The post went to Henry Willard Williams, M.D., of Boston City Hospital. With the appointment, Harvard's recognized courses in ophthalmology left the Infirmary and went to Boston City Hospital, where they remained until 1892.

The faculty at Harvard Medical School had not always been opposed to lecturing to female medical students. In 1850 they voted five to two to allow Harriet Hunt, a well-qualified and mature woman, to attend lectures but not for the purpose of obtaining a degree. At the same time, they voted to admit three black men, with the understanding that they would emigrate to Liberia once they had obtained their training. Before any of them could attend a lecture, the Harvard medical students met to protest their admission. "Resolutions were drawn up which charged that the 'socially repulsive' blacks would undermine the value of their diplomas. Similarly, Hunt would be kept out 'to preserve the dignity of the school and the students own self-respect.' No woman of 'true delicacy' they claimed would be willing to attend medical lectures with men. And they, in turn, would be unwilling to mix with any woman who 'unsexed' herself thereby sacrificing her own modesty."

There is no record as to how Harvard resolved the problem. It is known that Hunt was persuaded not to attend the lectures and that the blacks also withdrew.

To return to the September 29, 1871, letter of Brown, Low, and

Dubois to Edward Hammond Clarke, M.D., President of the Board of Managers of the Massachusetts Eye and Ear Infirmary: In addition to being President of the Infirmary's Board of Managers, Clarke was professor of Materia Medica in Harvard College. In this last capacity, before the 1869 graduating medical class of Harvard College, he spelled out his views on the rights of women and their place in the medical profession. He was aware that this was a delicate subject. So much ridicule, sarcasm, and false sentiment had been thrown about of late that it was difficult to speak of the women question without exciting a smile. He told his audience that they could be sure that whatever a woman could do she had a right to do, and that eventually she would do. A woman had the same right to every function and opportunity that the world offered, that a man had. It was idle to talk about this or that being right for man and wrong for woman. Whatever was right for one was right for the other. If it was right for man to study medicine, it was right for woman to study medicine. There was nothing improper in medicine itself for a woman to know or deal with. In fact, a knowledge of medicine could only ennoble, not degrade, a woman. The course of wisdom for all in the medical profession was not to oppose the efforts of women in medicine. Let the experiment of trying female physicians be fairly made. But — there is always a but — what of the propriety of teaching the two sexes, male students and female students, in the same room with the same illustrations — human anatomy, human physiology, human pathology? Here, I quote directly from Clarke: ". . . I would not have a son of mine associate with any woman who *felt* no impropriety about dissecting a human body with him. I hope I live long enough to see here in Massachusetts the ballots falling impartially from male and female hands alike into our ballot boxes, so shall liberty and justice be secure forever; but — and there is always a second but — but God forbid that I should ever see men and women aiding each other to display with scalpel the secrets of the reproductive system, or with crucible and microscope investigating the components of urine; or charmingly discussing the labyrinthine ways of syphilis."

Dr. Clarke would not deny women medical education. It was their right and he would defend that right. What he advocated was "separate but equal" instruction. Clarke was known in Boston as being a firm friend and advocate of women's rights and of their freedom to seek the education of their choice. Marie Zakrzewska, founder of the New England Hospital for Women and Children,

considered him a "warm friend and protector." He was a consultant at her hospital, as was Clarence J. Blake, M.D., of the Infirmary's Aural Service and B. Joy Jeffries, M.D., of the Infirmary's Ophthalmic Service. This then was the man who passed on to the Board of Surgeons the request of the female medical students — Brown, Low, and Dubois. The Surgeons considered the request on October 4, 1871, five days after it was written.

In 1871 the Infirmary had 40 beds and treated about 4,000 eye cases. A total of 297 operations were performed on the eye, none on the ear. There were seven surgeons on the Staff: five ophthalmologists and two otologists. There was one Assistant to the Surgeons, a post that corresponded to today's Resident. Five of the seven Surgeons were present at the meeting when the request of the female medical students was considered. By reason of his seniority, Hasket Derby, M.D., Ophthalmic Surgeon, was in the chair. Clarence J. Blake, M.D., Aural Surgeon, acted as Secretary.

The minutes of that October 4, 1871, Surgical Staff meeting read: "It was moved by Dr. Derby — That it is the sense of the Board of Surgeons that each member thereof be permitted to receive at the Infirmary such female practitioners and students as they see fit. Passed unanimously. It was further voted — That a copy of the above vote be sent to each of the absent surgeons and to the Secretary of the Board of Managers."

This vote can be read to say that the Infirmary Surgeons were unanimously in favor of medical education for women. Also, because the Infirmary was a small institution with a small Staff, there was the possibility that men and women would be instructed together, that is, coeducation. And a faint possibilty that when Harvard medical students came to the Infirmary for their lectures, they might be joined by females from another school. These possibilities were contrary to President Clarke's known views on "separate but equal" medical education for women and that females should not under any circumstances attend a Harvard medical lecture.

The Secretary of the Board of Surgeons passed a copy of the vote to Augustus Lowell, Secretary of the Board of Managers. That body considered the matter at their regularly scheduled meeting a month later. All we know of what was said, what turns the debate may have taken, is in these few words from the Minutes of the meeting: "With Dr. Clarke in the Chair, a resolution was approved: That it is expedient to grant women of proper qualifications the opportunity to witness the practice of the Infirmary upon the same terms as other students."

There was one important phrase in the Manager's resolution that was not in the Surgeon's vote: ". . . women of proper qualifications." The Surgeons were quick to spot this. When next they met, they passed a resolution: "That the Board of Surgeons considers that the Board of Managers allows the Surgeons to decide individually as to the qualifications of women presenting themselves to witness the practice of the Infirmary, also as to their reception or not to witness the Clinic." In other words, the Board of Managers would not decide the qualifications of female medical students; the Board of Surgeons as a body would not decide the qualifications, rather each Surgeon alone would make the necessary decisions and choices.

There was more to this than an exchange of subtleties of social philosophy between two groups of men, more than the defining of areas of authority between two boards. The four words — women of proper qualifications — were, at the time, the most important four words in the whole field of women's medical education.

The truth must be told: There were very, very few women who had proper qualifications. In fact, there were few women with any qualifications at all. Elizabeth Blackwell, the first woman to break into the ranks of American medicine, had received her degree in 1849. The New England Female Medical College held its first session in 1848. The Women's Medical College of Pennsylvania was organized in 1850. Both of these institutions were weak, weak in finances, weak in instruction, weak in enrollment. The few "regular" medical schools that would accept women were often as weak as the two female medical colleges. The result, sad to relate, was that the system produced poorly qualified women and not many of them.

Should a woman somehow receive proper qualifications, it might do her little good. A case in point is the already mentioned Susan Dimock. She studied medicine first at the New England Hospital for Women and Children, then she went on to get her degree at the University of Zurich, with further graduate studies in Vienna and Paris. She returned to Boston to head the New England Hospital for Women and Children and to establish there the first hospital school for nurses in the United States. Then she applied for membership in the Massachusetts Medical Society. That Society's by-laws read: "Any person of good moral character, found to possess the qualifications prescribed by the rules and regulations of said Society; shall be admitted a fellow of said Society." Susan Dimock was of good moral character; Susan Dimock possessed all

the qualifications prescribed by the Society's rules and regulations. Yet Susan Dimock was denied fellowship in the Massachusetts Medical Society because as a person she was a female and not a male.

Sara E. Brown, Celia F. Low, and Mary Dubois were students of Dr. Dimock at the New England Hospital for Women and Children. Did the Surgeons of the Infirmary, individually or collectively, find them qualified to witness the practice of the Infirmary in its clinics? The answer: a qualified maybe. There are no Infirmary records specific to the question. A long and diligent search through all the guides to the literature of medicine, plus the intelligent cooperation of the staff at the Schlesinger Library at Harvard turned up one reference to one of the students — Sara E. Brown. Her name, complete with the letters M.D. after it, appears as author of a three-page article entitled "Removal of Twenty-Eight Small Gravel Stones, which Lay Seven Years in Both External Auditory Canals — Recovery." At the time Dr. Brown was living in Boston and doing aural work at the School for Feeble-minded Youths in South Boston. It is recorded that her paper had been rejected by the *Boston Medical and Surgical Journal* "on account of her sex." That it was accepted for publication in the *Archives of Ophthalmology and Otology* is something of an accolade for Dr. Sara E. Brown. Herman Knapp, M.D., the journal's editor, had the reputation of being one of the most demanding and critical editors of the time. To have him accept your article for publication was to have your work know high editorial approval.

1873, the year of the composition of Dr. Brown's paper — she was not to write another — also saw the publication of a book entitled *Sex in Education; or a Fair Chance for the Girls*. The author was Edward Hammond Clarke, M.D., President of the Board of Managers of the Massachusetts Charitable Eye and Ear Infirmary. Of this work, Oliver Wendell Holmes, M.D., Clarke's friend and biographer, wrote: ". . . nothing that came from his pen has been so universally read . . . the publication was like a trumpet call to battle, and started a contest which is not over yet."

In the period 1853 to 1926, it was the custom at the Infirmary to name a physician to be President of the Board of Managers. One reason Clarke was selected for the post in 1869 was his special knowledge of diseases of the ear. When he had entered the field of otology nearly a quarter of a century earlier, aural surgery had almost no existence in this country. His writings — "On the Causes, Effects, and Treatment of Perforations of the Membrana Tym-

pani," "Nature and Treatment of Polypus of the Ear," and "An Analysis of One Hundred and Forty Cases of the Ear" — have been rated as being among the earliest and most valuable contributions to the literature of otology to be made by a U.S. physician. Unless there is evidence to the contrary, he was the first medical professor in Boston to deliver a formal program of lectures on diseases of the ear to medical students. He used patients at the Infirmary for his clinical demonstrations. One of his first acts when he became President of the Board of Managers was to encourage his young associate, Clarence J. Blake, M.D., to come to the Infirmary as Aural Surgeon and assume teaching and clinic responsibilities. The Blake appointment marked the beginning of otology as a separate discipline at the Infirmary. Clarke's worth to otology was given recognition when he was named an honorary member of the American Otological Society in 1875.

That Clarke should write a book entitled *Sex in Education; or, a Fair Chance for the Girls* was no surprise to some, but what he had to say was a surprise to most. In his earlier addresses and writings, he had come out boldly and firmly for the right of women to seek higher education, to train for the professions, although he was one of the "separate but equal" school of thought. He did not recant this opinion. On to it he grafted the philosophy that before any woman embarked on an educational program, especially one where she would compete with men in a classroom, it should be made clear to her that unlike the men "she required her regular furlough." He looked at the girls of Boston, at those he had seen as patients in his practice, and found them inferior in health to their European counterparts. They were a feeble race and would give birth to a feeble race. He saw crowds of pale bloodless female faces that suggested consumption, scrofula, anemia, and neuralgia. There were those among them with monstrous brains and puny bodies; abnormally active cerebration and abnormally weak digestion; flowing thought and constipated bowels. It was clear to him that to a large extent, the present system of educating girls was the cause of this pallor and weakness.

He wrote on that the female, unlike the male, knew two periods of growth and development: the first in her mother's womb and the second when she entered puberty. At this second stage, so critical to the correct development of the "engine within the engine," the young female should know leisure, quietness, gentle exercise, sensible hours, and nourishing food. Certainly it was

dangerous to her body's future and to her children's future for her to know the stress and competition of the classroom, especially of a coeducational classroom. Clarke was not through: What of that period every month, that period all women knew, that period when nature took its toll of her and she was not herself mentally, physically, and emotionally? To ask a woman to compete while under the influence of the Curse of Eve, to compete with a male in any endeavor, was to ask the impossible and to court personal and racial disaster.

Today, Clarke's views, which he held so sincerely, may generate little more than a bit of laughter. But in his day they received most serious attention. His basic thesis, "The hope of the race lies in educating a man for manhood, a woman for womanhood, and both for humanity," was held by many thinkers who believed that the future would be brightest if each sex concentrated on filling the roles designed for them by God and nature. Holmes wrote that Clarke received a great number of letters and communications confirming his views, and was made the object of many attacks, which he bore with perfect equanimity, feeling he had honestly given the results of his experiences, having only the good of the community in view. Another commentator wrote: ". . . no single book on the limitations of the female system worked such controversy. In 13 years there were 17 editions. One book store sold 200 copies in one day. It became the bible of the foes of co-education." This last was far from Clarke's intent. But he was a Boston physician, a professor at Harvard Medical School, and this insured that his words would have a haunting influence for over two generations.

If the above figures are correct, then Dr. Edward H. Clarke, President of the Board of Managers, 1869–77, was the most popular and successful author the Infirmary knew before the advent of Robin Cook and his *Coma*.

The first edition of Clarke's book came out in 1873. I am certain that it is only coincidental, but from that date on until October 1895, in all the records of the Infirmary, there is not a single word on women as medical students or as doctors. It may be that there were no women of proper qualifications available. In those years the Infirmary grew closer to Harvard Medical School, taking its students from that school and many of its residents from there also. Harvard Medical School remained a citadel of masculinity until the mid 1940s. On the above mentioned date of October 1895, the Surgeons met to rewrite their rules and regulations. They voted

that old Rule 4 in reference to the admission of women students to the Infirmary be omitted on the grounds that it was an unnecessary distinction.

The Infirmary Surgeons may have been in advance of their times in their views on the education of women in medicine. When it came to welcoming a trained and qualified woman to be their peer, the story was different. In 1906 Dr. Louisa Paine Tingley applied for the position of Clinical Assistant in the Ophthalmic Clinic. She is the first woman on record to have applied for any position on the Infirmary Staff. There was a discussion and the Secretary was instructed to write Dr. Tingley ". . . that the Ophthalmic Staff did not consider it expedient at present to approve her for the post of Clinical Assistant." Dr. Tingley took them at their word and waited until another time to apply again, the following October. The answer was the same: ". . . it was not expedient at present to approve her for the post of Clinical Assistant." This time Dr. Tingley got the message and never again applied for a surgical post at the Infirmary.

Maud Carvill, M.D., was the first woman to hold a surgical appointment at the Massachusetts Eye and Ear Infirmary. She was appointed Clinical Assistant on the Ophthalmic Staff in 1921. The path to her appointment was made easy by George Strong Derby, M.D., son of the Hasket Derby, M.D., who had dared to lecture to women at Harvard Medical School. At later dates the Ophthalmic Surgeons would appoint to their Staff Edith Ives Cogan, M.D., Juanita Johns, M.D., and Bertha Offenbach, M.D.*

One year after the Carvill appointment, Dr. Isabel D. Kerr was named an Assistant in the Otolaryngology Department. In 1931 Margaret Kleinert, M.D., was named Assistant Surgeon in the same department; and in 1937 Elizabeth DeBlois, M.D., was appointed. These three are the only women to date to know appointments to the Senior Staff on the ENT Service. None of them ever held a position higher than Assistant Surgeon, even though Dr. DeBlois's term of service was 33 years.

Mention must be made of the Board of Managers and the attitude there towards electing a woman to Board membership. Over the years women had given thousands of dollars to the funds of the Infirmary. Men only had managed those funds and the other affairs of the Infirmary until February 9, 1938. Under the terms of the

*Biographies of these four women appear in Offenbach, B. "Four of Us." Infirmary Archives, WZ.100.Offenbach.1965.1.

Infirmary's charter, the Commonwealth of Massachusetts has the power to name two members to the Board of Managers. On the date above, Leverett Saltonstall, then Governor, named the first woman to be a Manager of the Massachusetts Eye and Ear Infirmary. Her name, Ida O'Brien. Nothing is known of her except that she was the wife of Charles J. O'Brien, that she lived at 18 Grafton Street, Arlington, and that she served one two-year term.

I did not know Isabel Kerr, M.D.; she was before my time. It was my privilege to know Margaret Kleinert, M.D. She was a warm and gracious person. For many years she was on the editorial board of the *Journal of the American Medical Women's Association.* In her later years, she spent much of her time gathering material for a history of women in medicine in Massachusetts. Her papers, a real treasure, are on deposit in the Schlesinger Library at Harvard. Elizabeth DeBlois is well-known. For many years she had a practice in the office of Francis Weille, M.D. She was very much the no-nonsense type. When last heard from, she was getting up at the crack of dawn to sail her boat around an island off the coast of Florida.

The Infirmary's first woman resident is also well known. She is Deborah Pavan-Langston, who was appointed to the Ophthalmic Staff in 1968. What good fortune came to the Infirmary with that appointment. On June 13, 1979, tagging along late as always after the ophthalmologists, the Otolaryngology Service graduated its first woman resident, Elaine D. Carroll, M.D. Some things take a long time. One hundred two years ago Sophia Jex-Blake, Susan Dimock, and their companions were asked, ungracious as was the task, to suspend their visits to the "cliniques" of the Infirmary.

In reviewing all this, in going back to the time of Hasket Derby, M.D., Edward Clarke, M.D., Clarence J. Blake, M.D., to Harvard Medical School and the Massachusetts Medical Society in the 1860s and the 1870s, one can be puzzled. Why did those women try so hard, expend so much energy to get a medical education and a license to practice medicine? They knew they were not wanted. Did they know what medicine was like in those days, the sort of person the average doctor was, and what his life was like? Listen to these comments made at the time of the profession, its practitioners, and its students:

> *When the President of Harvard proposed that there should be a written examination for the degree of Doctor of Medicine, he had to be told that he knew nothing about the quality of Harvard Medical*

Students, more than half of them could barely write. Of course, they couldn't pass a written examination.

At Jefferson Medical College the students were of the crudest character. Their costume was a slouch hat; as an overcoat they wore a blanket with their heads thrust through a hole in it. Many slept five or six in a room. Their favorite pastime was to chew tobacco and spit on the floor of the lecture halls.

Medicine has ever been and is now, the most dispised of all the professions which a liberally educated man is expected to enter. Although a few eminent doctors make handsome fortunes, the majority can barely scrape together a respectable living.

An American physician may be, and often is, a coarse and uncultivated person, devoid of intellectual interests outside of his calling, and quite unable to speak or write his mother tongue with accuracy.

Women wanted to get into that profession, associate with such characters. Why?

Something of an assessment is in order. In 1869 when Edward H. Clarke, M.D., President of the Board of Managers of the Infirmary, declared himself in favor of all women's rights with the exception of coëducation in medicine, he placed himself with the radicals. When Hasket Derby, M.D., Infirmary Ophthalmic Surgeon, lectured to women in Harvard Medical School, he placed himself with the ultraradicals. When the Surgeons of the Infirmary opened the doors of the Infirmary without restrictions to female medical students, they did what no major hospital in Boston had done to that date. It is a pity that this brave beginning remained only a beginning and nothing more.

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The Infirmary Patients of the Nineteenth Century

The Worthy and the Unworthy

There had never been any advertisement, or public notice of the existence of the Infirmary, but those patients who had been cured sent others, and thus the number of applicants increased.

The presence of poor people in Boston suffering from curable eye diseases and being worthy of gratuitous aid was the cornerstone on which Reynolds and Jeffries founded their charitable institution. The first patient they treated whose name is known was Icobod Plaisdell. Not Ichabod, but Icobod. On August 15, 1825, from their own pockets, Reynolds and Jeffries took $15 to pay for seven weeks of board for Icobod. Having only the one room in Scollay's building, they adopted the practice, one they would continue until July 1837 when they acquired a hospital, of boarding out patients who had no homes in Boston and who required prolonged treatment. The second patient they so provided for was Sally Temple. For 27 weeks in 1826, they paid $1.50 a week to keep her in Lucretia Cunningham's boarding house. During the same period they paid $2 a week for Seymour Davenport to stay first at Mrs. Turner's and later at Thomas Murphy's. The records do not provide any diagnoses for these three patients or for 17 similar patients whose names are on the records until 1837. The rates for their board went from 12 pence, or $1.50, a week to $3.50 a week for Mrs. Davis and child. No boarding house keeper was used more than once. The shortest period of time any of them was so supported was two weeks; the longest, an estimated eight months.

These are the only patients known by name until 1837, when the Infirmary acquired its house on Green Street. Then the names of all house patients were recorded in the various ledgers and documents. The clinic outpatients are nameless, only numbers, no records of them have survived. It is safe to assume that the house patients, whose names and records we have, were, in general, no different from the clinic patients whose names and records we do

not have. A complete house patient record of the time provides the patient's name, date of entry, Surgeon's name, age, sex, sometimes occupation, place of birth, place of residence, and then goes on to give the diagnosis, treatment, and date of discharge.

Using the records of 1852, the following statistics were assembled. In that year the admissions totaled 163.

The patients came from:

Ireland	71
England	5
Scotland	4
Wales	1
Canada	4
France	2
Germany	1
Portugal	1
Total	99

United States and "Unknowns"	64
Grand Total	163

Their place of residence at the time of admission was:

Maine	10
New Hampshire	5
Rhode Island	9
Connecticut	1
Vermont	5
New York	2
Maryland	1
Illinois	1
Wisconsin	2
Azores	1
Unknown	2
Total	39

Boston	47
Massachusetts	77
	124
Grand Total	163

Their ages were:

0–10 years	14
10 years–20 years	22
21 years–30 years	57
31 years–40 years	18
41 years–50 years	21
51 years–60 years	15
61 years–70 years	7

71 years–80 years	4
80 years–90 years	1
Unknown	4
Total	163

The youngest patient admitted was a four-month-old girl; the oldest, an 84-year-old woman.

Sex:

Sixty-one of the patients were females; 102 were males.

Length of stay:

The longest stay was seven months for a case of chronic corneitis, the shortest stay was one day. A cataract patient could stay in the house from two weeks to three months.

Diseases treated:

Eighty cases, almost half the total, were infectious diseases of the cornea and the conjunctiva and their sequelae. There were 24 cataract patients; 14 cases of amaurosis, 11 cases of iritis, three neoplasms, three pterygium, five eyes destroyed by accident, and five aural cases.

The cost of maintaining these 163 patients in the house was $3,240.39.

One last lot of statistics — the 1855 census of the city of Boston was recorded as:

Males	78,216
Females	84,352
Total	162,568

Irish	69,236
Germans	4,590
Others	12,542
Total	
Foreigners	86,368
Negroes	2,220
	88,588

This is a good place to comment on blacks as patients in the Infirmary. There is nothing to indicate that there was ever a color line. In 1839 Polly Edwards ("colored") entered the house as a free patient and stayed two months. In the same year Margaret Scott ("Black") was a free patient for three days. Benjamin Fuller ("Coloured man"), seaman and farmer from New Bedford, stayed three

months, having his destroyed right eye treated. Scattered comments in the records show that it was common to treat blacks in the Out-Patient Clinic.

The first statement made above is based on the fact that in the patient records the names given are followed by the words (colored), (Black), and (Coloured man) written in parentheses. This was not a common practice in the Infirmary patient records. In some 16 years, parentheses were used on only two other occasions. Once (Russian) appeared after a name, and (Asiatic) after a name obviously Armenian.

The 1850 Regulations of the Infirmary stated: "All poor persons affected with diseases of the eye and ear, desiring medical treatment as out-patients, can receive the same gratuitously, by applying at the infirmary, in Charles street, at eleven o'clock, on each day of the week, Sunday excepted." Those desiring to be admitted as house patients applied at the same time. The Surgeons decided on the propriety of admitting them. The Assistant to the Surgeons was empowered to decide the rate to be charged for board or, if proper, to assign them to a free bed. His decisions were subject to a later review by the Visiting Committee. The beds were alloted as follows: Males — 12 free, six paying; females — eight free, four paying; total — 30. The rate was $3 a week or a lesser sum. The price was fixed ". . . low as to make the infirmary, to as great an extent as its funds will admit, a charitable institution, and in each instance shall be according to the circumstances of the patient, and the accomodations they may receive."

The patients accepted this philosophy. One Assistant to the Surgeons noted: "No patient has been refused admission to the Infirmary because of inability to pay board and where they cannot pay the same in full, they express invariable pleasure in doing what they can, thus feeling they are not misusing the benefits of the institution."

Patients, paying and free, were refused admission to the house when there was a shortage of beds or a scarcity of money to maintain the beds. A cursory search of the records failed to find a single instance when all the beds were full. The occupancy rate ran from a low of 20 percent to a high of 85 percent.

The building the patients entered had been dedicated on July 3, 1850. In the basement was the kitchen, washroom, laundry, refractory wards, baths, and storerooms. On the first floor were the rooms where the patients were examined and received into the house. Once admitted, there was an absolute segregation of sexes.

The wards for the male patients were on the first floor. On the second floor were the wards for the female patients. Small children were assigned beds in the female wards. The sexes were separated at meal time. The food they received was much the same as that served to the domestics and the Matron.

Patients in the wards could receive visits of their friends daily at noon, Sundays excepted. Patients in private rooms could be visited by their friends at any suitable hour by permission of the Superintendent. In all cases, however, the Superintendent had discretionary powers about excluding or admitting visitors to all parts of the Infirmary.

The Visiting Committee had the power to decide upon the continuance or discharge of every patient, after the expiration of three weeks from the time of his or her admission to the Infirmary. No free patient could be continued after the term of three months without a special vote of the Managers for that purpose.

The regulations stated that if free patients were able, in the opinion of the Surgeons, they should assist in the care of others or in such service as the Superintendent might require. Should they refuse to do so, they would be reported to the Visiting Committee. This rule may explain why, from time to time, patients, male and female, would be dismissed from the house for gross insubordination. Aside from this rule, all that was required of the patients was that they be clean-spoken, not leave the building or grounds without permission, accept without question the treatment given them by the Surgeons and by the Matron and her staff, and be docile and grateful. In short, behave as "worthy objects of the charity." They could not ". . . by their competency, or by their vices and follies, be unworthy of a private charity."

They had rights. The right to complain was one. An example: Should they not like the food, they could complain as they once did to Dr. Solomon D. Townsend, President, about the quality of the bread. He examined it and found it perfectly satisfactory. They could approach Dr. Townsend or any other Manager on more personal matters. An example: Should they be in extreme poverty or distress when they were to be discharged, a word to a Manager on his visit would result in the Superintendent's being directed to give them relief in money and clothes.

There is no record that any patient ever complained to a Manager or anyone else about being too warm in winter. When that season descended on Boston, and the wind whipped across the Charles, things in the Infirmary were not comfortable by today's hospital

standards. In its final enlarged state, the building was heated by five furnaces plus one large stove. Eighty tons of coal were consumed each season to keep the building at 60°F. Fires were allowed to go down at night. The wards did not again become heated until long after the patients were compelled to be up and dressed, the very time when warmth was most desireable. The Superintendent of the time suggested a steam boiler.

In general hospitals in the nineteenth century, it was the custom, as it is today, to remove the patient's clothes, assign him some sort of hospital gown, and put him to bed where he stayed until it was time to be discharged. This was not the case at the Infirmary. A large percentage of the patients were victims of infectious diseases of the external eye. They were not sick in the true sense of the word. They were miserable and unhappy. It made little sense to try to confine them to bed, especially when their length of stay might be weeks or even months.

If the patients were not in bed most of the time, then they were up and about. If they were up and about, this meant they were clad in their own clothes, not hospital gowns. The patients' clothes had to be washed and mended. Not every Matron was as conscientious in meeting this charge as was Mary Watson in the 1860s and early 1870s. One who commented on the scene some years after she left had this to say: "The fact that all our patients are from the very poor classes, and that many of them, especially the men, enter the hospital in a very foul condition, exposes us to the danger of outbreaks of contagious diseases at any time. The bad odors in the male wards throughout the hospital are largely caused by the dirty clothes of the patients." The commentator was right on one point. In the nineteenth century, it was necessary to curtail activities at the Infirmary on at least two occasions due to epidemics.

To be clean in person and clothing, it is necessary to have an abundance of water. In the nineteenth century, there was just no running water in the homes of the poor in Boston. All too often it was necessary for a number of families to use a single tap or pump that was in an open yard area or at the curb. The water was carried by buckets up the flights of stairs of the tenements. The excreta and wastes were carried down, it is hoped, in other buckets. If hot water was wanted, it was heated on stoves in the dwellings. Fuel cost money that the poor could ill afford to spend. The dwellings were often small, dark, and overcrowded — warrens where six, eight, ten, or more people lived in one, two, or three rooms. Few of the poor had changes of clothing. They often lacked the

incentive to be clean in person or had the knowledge that it was important to be so. These well-documented facts are recited here to demonstrate why for much of the Infirmary's early history many of its patients were in "a foul condition" when they entered the house, why their clothes were dirty and gave off "bad odors," and why many of their diseases had root causes in ignorance and poor personal hygiene.*

As noted, many of the patients of the Infirmary were ambulatory, not confined to their wards and beds, free to move about the house and grounds. They had still more freedom. With the permission of the Superintendent and the Surgeons, some could go about the city, visit friends and relatives, and run errands. On April 16, 1863, ten of the women patients went to the Union Concert, using tickets that had been presented to them by Miss Shaw. It is recorded that male patients, who must have been bored, would at times resort to looking for bait-worms in the Infirmary yard and using them to try to catch fish in the Charles River.

The Infirmary patients were not an idle lot by nature. In their first appeal to the public for financial support and in many of their subsequent appeals, the Managers made the point that the recipients of the Infirmary's charity were not the indolent and worthless of the community, but chiefly the industrious, those who were ambitious to continue in useful employment. The occupations of the patients applying for relief showed that they belonged almost exclusively to a class dependent upon their daily labor to support not only themselves, but also their families.

In the house patient records it was the custom, not always followed, of giving the patients' occupations. In the 1878–79 Annual Report the occupations of all patients, house patients and clinic patients, were listed for the first time, and the above statements were borne out. Almost all patients were unskilled or semiskilled workers. Rarely were skilled workers such as carpenters, engravers, goldsmiths, and stonemasons listed. And still more rarely were professionals such as clergymen, dentists, doctors, and pedagogues listed. Present were occupations that no longer exist, or are infrequently practiced today: coachman, hatter, cigar maker, lamplighter, carriage maker, harness maker, towboy, oysterman, saloon keeper, and currier.

Some of the occupations of the female patients were: "Home,"

* See Handlin, Oscar. *Boston's Immigrants, a Study in Acculturation.* Cambridge, Mass.: Belknap Press of Harvard University Press. 1959.

housekeeper, seamstress, domestic, teacher, nurse, sewing, milliner, and charwoman. In the 1885–86 Annual Report, the occupation of 226 women was given as "Widow." The following year there were 219 "Widows." All of these "Widows" were ophthalmic patients, no "Widows" were aural patients. It is surmised that the clerk in the Ophthalmic Clinic used one master list of occupations, whereas the clerk in the Aural Clinic used a different master list.

These workers of the poorer classes became fully aware of the value of the Infirmary and were disposed to avail themselves of the charity. So, as patients they entered the house, stayed for a time, and then left. They left when they were cured, or improved, or when nothing more could be done for them. From time to time, a patient would be sent to the Massachusetts General Hospital or the Boston City Hospital. At least three were removed because they went insane. Some were returned to the place from whence they came — the Chelsea Naval Hospital, the House of Industry, the Almshouse. In some cases of young patients, where treatment had failed, they were transferred to the Blind Asylum. The majority, however, returned to the homes they had known and to the way of life that had been theirs. All too many of them came back to the Infirmary at a later date to the clinic, or to enter the house, for treatment of their original affliction.

Not every patient was happy in the Infirmary. They would get dissatisfied with their position and would elope. One unhappy fellow eloped with money he had borrowed from his fellow patients. Another eloped and was brought back the next day by the police from East Boston. A mother and her 18-month-old daughter were taken into the house. After a few days, the mother became quite unruly and discontented. She requested to be discharged and was. Another woman, very uneasy, excitable and nervous, and knowing excessive grief over the recent death of her husband, got into "a high dudgeon at the paucity of remedies used in her case" and asked to be discharged. There were those who were restless and troublesome and wanted to go home. Children would become homesick. Fathers wanted to go to look after their families. Families and friends were known to come and remove unhappy patients against the advice of the Surgeons.

And there were those patients who were ordered to leave: the man of intemperate habits who was sent to the House of Industry; the 15-year-old girl who was nearly well and was discharged for disobedience; the patient who was rather irregular in going to bed

and came in at odd hours was also discharged. Then there was the poor tailor, a patient who got better and worse. It was thought best to discharge him as "he went out freely and the Cholera existed in the city." There was no place in the house for the "patient who had long indulged in venereal excesses, and was now nearly completely blind."

The Infirmary was limited in its capacities. Patients, some "miserable, feeble and old, miserable to the last degree," had to be discharged to make room for new patients. There was one who "had been a house patient many times and seemed to have an unwillingness to live anywhere else." He had to go. The "patient, still in the house and who was occasionally better and then worse and had gotten to be a 'regular old soldier.' " He too had to go. How the Christian charity convictions of the Surgeons and Managers must have been tried when time in the house ran out for "the poor feeble man with the loss of an arm," "the feeble, broken down old woman, who had had poor health for 30 years," "the sick old man who preferred death to life," and the "poor, miserable bastard child, who would relapse into her old state after the cessation of remedies." The Infirmary could give them care and shelter for only so long. Other institutions had to continue with the burden.

Patients rarely died while under the care of the Infirmary. The one German treated in 1852 was an eight-year-old girl who most certainly succumbed to retinoblastoma. In 1848 a patient with chronic otitis died of an abscess of the cerebellum. These are the only deaths listed for this four-year period.

Because the Infirmary knew financial support from the public, it was under obligation to accept patients from public institutions. They came from the Chelsea Naval Hospital, the Temporary Home, the Pine Street Home, the penitentiary, the Reformed School, and the House of Industry. Of all the public institutions, none sent more patients than the Boston Almshouse. And all too often, there were patients who were "alumni" of that institution. Surgeon Robert W. Hooper tells of a boy who had been brought up in the Almshouse. Upon reaching maturity, he signed aboard a whaler. Somewhere in the South Pacific whaling grounds, his eyes knew injury and infection. Months passed before his vessel returned to Boston and he could apply to the Infirmary for treatment. It was too late. His case record closes with these words: "Some sight followed this last operation, now is pretty comfortable, is in want

of clothes, etc., and is transferred to the Alms House." He was 28 years old, raised in the Almshouse, and fated to be returned to the Almshouse.

The Almshouse was well-known. The poor avoided it if they could. Hooper records that one woman had a permit to enter the Almshouse, but having an urgent desire not to go, came to the Infirmary, asked for treatment and was admitted. He tells of a man who was a noted liar, who probably changed his situation from the Almshouse to the Infirmary. Hooper did not give much confidence to his statements.

Hooper knew a good story when it came his way. On February 14, 1852, a 22-year-old woman was admitted to the house for treatment of a central opacity of the right cornea. Her place of residence was North Bridgewater. Her place of birth was "Doubtful." She stayed in the house one month and was discharged "much improved."

The following January 11, a 24-year-old man from Provincetown was admitted by Hooper for treatment of trichiasis, corneitis, granular lids, all of long standing. He told the story that some 16 years earlier he and his sister were put into the Boston Almshouse. At the age of eight years, he went to Provincetown where he had lived ever since and during that time had never heard of his sister. The record goes on: "A few days ago he was told that a young woman of the same name had been in the Infirmary and had returned to Bridgewater. Upon further inquiry he was convinced that it was his long lost sister and on his discharge he went to Bridgewater and found that it was really so. She is sick with an affliction of the ankle and he remains with her til she is well enough to go back with him to Provincetown."

This happy ending is offset somewhat by an earlier entry from the Visiting Committee Ledger: "January 6, 1848. At 12 1/2 p.m. a young woman came into the Infirmary in great distress and begged to be taken care of as she was about to give birth to a child. Which she accordingly did do in about 20 minutes from the time of her entrance. The child was still born — the mother was provided with such accommodations as the urgency of the case permitted — Jan. 7. Is doing well."

The patients had to be fed and fed properly by the Infirmary once they entered the house. The first Surgeons were of the school of thought that diet as a remedial agent in the treatment of eye diseases was not practical at the Infirmary. However, it was of great importance to regulate the diet, they said, both in respect to

quantity and quality of food and the number of meals. The diet should be nutritious, but not stimulating. There were three diets in use in the house. The first was termed the "low diet," mainly for febrile patients. It consisted of a choice of simple water, toast water, barley water, apple water, lemonade, tea, thin gruel, a little toast bread or biscuit. The second diet was the "moderate diet," for convalescent patients. They were allowed broths, milk, and farinaceous articles, vegetables, light puddings — no meat, or animal food, as it was termed. The third diet was the "house diet," the one served to most of the patients and the employees. Here animal food and vegetables were served in the proper mixture. By this it was meant that meat could be served once a day along with well-dressed vegetables, both green and root, milk, bread or other farinaceous articles, and ripe fruit. On this last diet, Hooper reported that in two weeks one male patient gained in health and appetite and three or four pounds of flesh.

For an interesting digression, the following sentence, which has a modern ring, was found in the 1841 edition of William Lawrence's *Diseases of the Eye*: ". . . particular care should be taken to keep off unwholesome trash so frequently given to children by kind but injudicious friends."

In 1860 the cost of all food items was $1,611. The total cost of running the Infirmary, including the payroll, was $3,714. Seven years later, in 1867, the food cost rose to $4,883 and the total cost was $10,657. That year the employees were ten domestics and one Matron, and 338 patients were admitted to the house. There were 39 beds. It was about this time that the Surgeons began to pressure for better food and a more varied diet for the patients. And it was at this time that the Managers demanded economies from the Matron. The result of that conflict has already been told.

The quality of the food came up for discussion again in 1889. At a meeting of the board of Surgeons, Dr. Derby ". . . presented a list of such articles of diet as the City Hospital and the State Prison furnished their inmates, together with the present diet-list of the Infirmary, which latter was seen to be deficient in variety and quantity of food supplied to the patients." Derby then exhibited a corrected list. By unanimous vote, Dr. J. Orne Green, Secretary, was directed to send a copy of the same to the Board of Managers along with comments on the state of the present insufficient diet. It took the Managers five months to approve the new dietary and to instruct the Superintendent to put it into effect.

When the final approved dietary was shown to Dr. Green, he

Proposed Dietary for Mass. Char. Eye & Ear Infirmary

	BREAKFAST	DINNER	SUPPER
MONDAY	*Corn meal & milk, bread & butter, cocoa or coffee*	*Corned beef, potatoes, one vegetable*	*Bread & butter, tea or milk*
TUESDAY	*Stewed meat, bread & butter, coffee or cocoa*	*Baked beans, graham bread & pudding*	*Bread & butter, corned beef, tea or milk*
WEDNESDAY	*Oat meal & milk, bread & butter, cocoa or coffee*	*Fresh fish, potatoes, rice*	*Bread & butter, tea or milk*
THURSDAY	*Mush & milk, molasses, bread & butter, coffee or cocoa*	*Roast mutton, potatoes, one vegetable*	*Bread & butter, tea or milk*
FRIDAY	*Stewed meat, bread & butter, coffee or cocoa*	*Salt fish, potatoes, pudding*	*Bread & butter, tea or milk*
SATURDAY	*Fish hash, bread & butter, coffee or cocoa*	*Beef soup, potatoes, one vegetable*	*Bread & butter, corned beef, tea or milk*
SUNDAY	*Rice & milk, bread & butter, coffee or cocoa*	*Roast beef, potatoes, bread-pudding*	*Bread & butter, tea or milk*

noted that Friday's stewed meat for breakfast would be neglected by all good Catholics. Mrs. Whitford, the Matron, wrote: ". . . there was no one to carve the meat but the cook and she didn't know how, and the junks of meat they will get are not very attractive morsels." Dr. Stedman, the Superintendent, was of the opinion that some method would have to be devised for the better serving of the meals in the wards. The distance from the kitchen to the wards was too great to be able to serve the food hot. He suggested that small gas ovens or stoves be installed in the wards to rewarm the food.

No one recorded the patients' reactions to the new dietary or their opinion of the old one.

The cost of food in 1888 was $8,264. In 1890, the first full year of the new dietary, it rose to $9,542, an increase of $1,278.

Dr. Stedman had given assurances that sufficient and good food would be purchased and properly served and greater satisfaction would be known by the patients. His intentions may have been good, but his results left much to be desired if a special report written in 1895 by his successor, Dr. Farrar Cobb, is accurate.

Cobb found that one provision company had supplied the hospital for ten or more years. Provisions were ordered daily in small quantities, and the amount and prices charged were entirely at the discretion of the firm. No one ever went to market. Although food was ordered in large quantities, through want of skilled attention in the matter, the patients were not being properly fed. He found there was no supervision of the pantries or ice chests. His answer was to have the under-housekeeper, a woman with large experience in buying and food management in institutions, go to market daily and buy food where it was the cheapest. She was also to study wastes in the kitchen and in the house. Within a month, great progress was made towards feeding the patients and employees better and more properly than ever before and at the same time saving money for the institution.

By the time Cobb was through with this and other reforms, the per capita expense per week per each house patient averaged $10.75. The board charge of each patient was $6 a week. The cost of subsistence per inmate, counting all persons fed each day, averaged 21 cents a day.

Sometime after the Civil War it became fashionable in Boston to "do good." Young women of well-to-do families concerned themselves, on a personal level, with the plight of the poor. Institutions for the betterment of the unfortunates sprung up like

mushrooms. It seemed that no one lacked for attention. Fallen but repentant women had a Bethesda; even sick working horses had an infirmary of their own in South Boston. Perhaps as a measure of protection against a bombardment of appeals, many of the wealthy of Boston chose to identify themselves with only one charity. To the institution of their choice they would send an annual Christmas check, pass on old clothes of the family, and make other donations. Many chose the Infirmary.

Patients of the Infirmary knew some of this bounty. The Boston Flower Mission and others sent fresh bouquets to brighten their wards. The Somerset Club sent excess volumes from their library. One gentleman farmer made it a practice to send a barrel of apples every fall. Children's clothing came from the Needlework Guild and the Channing Circle. People were forever sending tickets for art exhibits and concerts to be distributed among the ambulatory patients. And the ladies came to visit. One of them had an interesting idea. With her friends, she set up a reading circle. Each day one of them would come to the Infirmary and read to the patients for an hour. The patients appreciated the gesture and told the ladies so.

No matter how large the bounty, how personal the offering, the Infirmary free patient was a poor, unfortunate specimen of humanity and he knew it. The system would not allow him to forget it. "The derelicts and castaways of life's stormy sea who were snug-harbored and cared for" were, according to one reporter, a "questioned-to-death class." It was thought proper that only those worthy of charity should receive charity. Worthiness could be learned only by repeated questioning.

In the first room of the Infirmary on Court Street, the Managers displayed a sign that read "This Institution Is Designed for the Poor Who Are Not Able to Procure Relief Elsewhere." What was meant by this was that the charity was not intended for those able to employ and compensate a surgeon for his services. At first Reynolds and Jeffries, later Hooper and Bethune, determined those that were worthy and those that were unworthy. It was on their authority that patients were judged fit to be treated in the clinic, and those to be admitted and the fee they could pay. By 1850 affairs became somewhat more businesslike. The Surgeon on duty recommended patients for admission, the Assistant to the Surgeons determined the patients' ability to pay, and later all this was reviewed by the Visiting Committee. By the 1880s the procedure became still more formal. Each new patient presented to the clinic would be subjected

to searching questions by a trained admitting clerk. During clinical examination by the Surgeon, the patient could know more questioning. Before becoming a house patient, there was a very thorough cross-examination by the Superintendent. Once assigned a bed, the patient knew scrutiny by the Matron's staff, ever on the lookout for those who were unfit. Few house patients succeeded in imposing on the charity of the Infirmary. This could not be said of the Out-Patient Clinic. There the Surgeons made every effort to exclude such cases as were unworthy of charitable treatment, but found it very difficult to separate the deserving poor from those who ought to pay a reasonable sum.

No one at the Infirmary enjoyed the role of being an inquisitor. As one Manager saw it: "The poor are among us and are suffering, they desire medical treatment and are grateful for the service." The Surgeons realized that a refusal of service tended to allow the ignorant of the patients to fall into the hands of inexperienced and unskilled practitioners. But every applicant had to be questioned for there were those in Boston who ". . . did not favor public charities, on account of the alleged abuse of them by the undeserving and thus giving support to a tendency to increase pauperism by encouraging idleness and an indisposition on the part of those receiving alms to provide for themselves." From time to time, complaints came from the medical profession that the Infirmary was abused by a large class in the community able to remunerate a physician for services rendered. The special work of the Infirmary could not be allowed to become subject to criticism in these respects.

All at the Infirmary knew the institution was particularly open to attempts at imposition, and that the number of people able to pay a fee had to be eliminated in order to confine the charity to its legitimate use. Great care in screening patients was genuinely necessary. In 1886–87 there were 316 patients who were found to be "unfit." The following year there were 494 "unfits." These facts showed that constant care had to be exerted to prevent the extension of medical charity to unworthy applicants and that attempts at imposition on the part of a certain set of individuals evidenced no tendency to decrease.

The last word on the subject in the 1890 Annual Reports casts the patients in a somewhat favorable light: "The number of cases recorded as unfit calls attention to the number of applicants who are not proper objects of the charity. This arises largely from ignorance on their part and on the part of those who send them."

What standards were used to judge the worthy and the unworthy? They could not have been judged on their state of health, for all the patients were ill or thought they were ill, otherwise they would not have applied for relief. They must have been judged on their financial competency. But nowhere in any of the documents and ledgers are the rules spelled out for judging the financial competency of patients. Perhaps the matter was left to the judgment of the Infirmary representative.

From the beginning, all approved patients were treated free of charge in the Out-Patient Clinic. This practice continued into the twentieth century. At first all medicines were distributed free of charge to the patients. In 1879 a fee of 15 cents was placed on each prescription. If the patient could not pay, there was no fee. In 1875 a fund was established to buy glasses and artificial eyes for patients too poor to buy them. A small fee was charged to those who could pay. The original charge for a patient's board for one week was $3, or less. This became $5 a week in 1869, and $6 a week in 1883.

These patient monies were never large enough to have an impact on the Infirmary's annual budgets. In one quarter in 1850, $30 was received from paying patients. In a quarter in 1852, $125 was collected from them. In 1877–78 a little more than one-tenth of the total cost of board was paid by patients. As late as 1895 the total received in a quarter from paying patients was $720. At that time the house population averaged 298 patients a quarter.

It was the care of the house patients that absorbed the bulk of the Infirmary's financial substance. The cost of operating the Out-Patient Clinic was once estimated at less than 10 percent of the total budget. When money was in short supply, the Managers would limit the sphere of the Infirmary's usefulness by closing a portion of the wards. In 1883 conditions were such that only 60 of the 90 available beds were in use.

There was never any curtailment of the Out-Patient Clinic activities. Its doors were regularly open to all the needy of the Commonwealth who required advice, assistance, or operation. Patients were also seen from other states and countries. Between 1824 and 1869 more than 76,000 patients were seen in the clinic. In 1869 the number seen was 4,800; ten years later the number doubled to 9,559.

To bring some order out of the chaos that must have existed at the receiving desk, a system of issuing cards to the clinic patients was instituted. The patient was assigned to the service of the Sur-

The Infirmary Surgical Staff — 1880. Standing, left to right: Clarence J. Blake, M.D., Henry L. Shaw, M.D., F. P. Sprague, M.D., B. Joy Jeffries, M.D. Seated, left to right: Gustavus Hay, M.D., Hasket Derby, M.D., Robert Willard, M.D.

geon of the day and given a card on which appeared the Surgeon's name, the hours, days, and months of the year he could be seen.

Each Surgeon's service card was of a different color — yellow for Sprague, blue for Derby, green for Willard, pink for Shaw, tan for Blake, and orange for Spear. At the bottom of the card were blanks for the patient's clinic number and for the number of the volume that contained his case record. On the back was printed an admonition against the abusing of the charity of the Infirmary by those who were not wholly poor or needy.

When the patient made a return visit, he did so on his assigned day so he would always be seen by the same Surgeon. He presented his card to the clinic clerk and was told to go to the waiting area until his name was called. There he could wait for a few minutes or a few hours, depending on the pressure of business. In the 1896

Annual Report, there is a photograph that shows conditions in the waiting area of the Clinic when the Infirmary was at 176 Charles Street.

The walls of the area were brick, the floor wood. The time of the photograph must have been winter, for all the patients are bundled up in heavy coats: It could have been there was little heat in the room. Adults and children, men and women, were crowded together on straight wooden benches. There is not enough of these, for fully a third of the patients are standing. Their clothing looks decent enough; here and there is a woman with a "brave" hat. With the exception of one old man and one boy, all appear to be adequately nourished. If it were not for the caption and the signs on the walls, a viewer might regard the patients as a group of weary passengers waiting for an overdue train in the grim waiting room of some small railroad station.

This photograph is as close as we can come to the nineteenth century patients of the Infirmary. All else we know of them, and how they were regarded, comes from printed and written words. They and their lot are best and most succinctly described by the Manager's words already quoted: "The poor are among us and are suffering, they desire medical treatment and are grateful for the service."

For its first 90 years, the Infirmary was a straight charity hospital, no private patients, only those who were indigent or near indigent and who suffered from diseases of the eye and ear. These were the years when the Boston area knew its greatest population of historical and literary figures. Although many of these famous people had ocular and aural problems, none of them were ever patients of the Infirmary because none of them were objects of charity. So there could not have been any famous patients in the Massachusetts Charitable Eye and Ear Infirmary. Of the poor people treated at the Infirmary, two — only two — gained a measure of fame in later life and made their mark as outstanding members of society. The records of their cases are preserved in the Infirmary Archives along with the records of thousands of ordinary people.

The first of the two was Howling Wolf.

Howling Wolf was a Cheyenne, one of a tribe that once lived in Wisconsin and Minnesota and then moved to the western Dakotas and Wyoming, and in the last years of their free tribal existence, when the horse became available to them, roamed as nomads from the Canadian border to central Oklahoma. In general, their

life was not too different from that of the other tribes of the area: a little agriculture, hunting for meat from the vast herds of buffalo and antelope that grazed on the plains, and an almost constant state of small intertribal warfare for territory and coups. With a few exceptions, all the land was theirs; they could do as they pleased, that is up until the end of the Civil War when the decision was made to remove the Indians from the plains and to confine them to a few hundred square miles in what is now Oklahoma. They, along with the buffalo, were a menace, a dangerous barrier to western expansion: They had to go. The land was needed for towns, wheat fields, cattle ranches, and railroads. In less than 15 years, the majority of the Indians were removed to reservations, and the herds of buffalo were fast becoming a memory.

The Cheyenne resisted with all their cunning, and with what might they could muster, but to little avail. The end of freedom and the beginning of subjugation came to them in April 1875, when the authorities, to be certain the tribe would remain docile on the reservation, took 72 warriors as hostages and imprisoned them a thousand miles away in the old stone fortress of Fort Marion at St. Augustine, Florida. One of the "desperate characters" and known leader of many raiding parties who was so treated was Howling Wolf. Another prisoner and a major chieftain was his father, Eagle Head. As the party went east, Eagle Head requested Colonel Nelson A. Miles to release his son. Miles refused, but he noted that Howling Wolf was one of the handsomest Indians he had ever seen, a stalwart young man of about 22.

Howling Wolf and his fellow prisoners were fortunate in having as their jailer at Fort Marion one of the most compassionate men in the U.S. Army, Lieutenant Richard H. Pratt. Pratt is remembered today for the efforts he made in behalf of his Cheyenne charges and for the founding of the Carlisle Indian School. He gave the men an opportunity to work for pay, to learn to read and to speak English, to join a military company, and to make friends with sightseers. But most important to our story, he provided them with pencils, paper, and colors and urged them to produce art work for sale to the whites. About a third of the men took advantage of the opportunity. On one occasion, Howling Wolf earned $6 from selling his art work. This was the beginning of his career as an artist.

The person responsible for a recent study on Howling Wolf and for bringing his art to the attention of today's readers is Karen

Daniels Petersen. Much of this presentation is based on her excellent book.* Mrs. Petersen is in error, however, when she writes of Howling Wolf's ocular problems. That she should have committed this error is understandable, for the most complete record, perhaps the only record of his ocular problems, is in the Infirmary Archives. This record was not known to her or available to her.

The portion of her story that is accurate goes something like this. Before a year had passed at Fort Marion, Howling Wolf's vision began to fail. Mrs. Alice Key Pendleton, daughter of Francis Scott Key, author of "The Star Spangled Banner," visited St. Augustine and became interested in Howling Wolf's plight. She obtained permission from the military authorities for the young man to go to New York City and be treated by Dr. Cornelius Rea Agnew rather than receive more treatment from the hands of the post surgeon, Dr. John H. Janeway. Over a year passed before the trip materialized. When it did, Howling Wolf did not go to New York City, but he came to Boston and the Massachusettes Charitable Eye and Ear Infirmary. Mrs. Petersen writes that his travel expenses were shared by Mrs. Pendleton and another benefactor for $15 each. The expenses for his treatment, hospitalization, and five-month stay in Boston were borne by benefactors there. Mrs. Petersen further states that Howling Wolf suffered from cataracts. This was not so. His case was one of bilateral pterygium.

Howling Wolf's surgeon was Henry Lyman Shaw, M.D. Dr. Shaw served on the Infirmary Staff from 1861 to 1911. The number of the case was 337 in Case Records, Volume 2. The date was July 20, 1877. The entry reads:

> *Aged 27, Howling Wolf from Cheyenne Reservation, living in St. Augustine, Florida, Indian Hostage.*
>
> *The patient, being an Indian hostage from St. Augustine, captured while taking part in an insurrection against the government in Cheyenne Indian Territory, has a history of having pterygium in both eyes and having the left eye operated on by caustic while at Fort Marion St. Augustine, Florida. At present he has extensive symblepharon and ankyloblepharon in the left eye and a large fleshy pterygium in the right eye.*
>
> *On July 21, 1877, without ether, Desmarres operation of transplantation done on the right eye.*

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* Petersen, Karen Daniels. *Howling Wolf — A Cheyenne Warrior's Graphic Interpretation of His People*. Palo Alto, Calif.: American West Publishing Co. 1968. (Howe Library — WZ.100.1968.1.)

On July 31, with ether, the left eye for symblepharon by Teale's operation. Aug. 20, the eyes still continue red and somewhat inflammed, not hardly following the same course as the operation in a white person.

Sept. 15, a small portion of the pterygium in his right eye, being left, transplantation was again done without ether.

Discharged, Nov. 10, 1877.

The records do not show it, but there is every reason to believe that Howling Wolf did not spend every day of his four months as a patient within the walls of the Infirmary. Patients undergoing long-term treatment such as his were permitted to leave to spend time with family and friends, and they returned to the hospital when their schedule of treatment called for it. There is indirect evidence that Howling Wolf was something of a minor social lion while he was in Boston, that he attended a wedding and visited in Boston and Cambridge homes. When he left the city, he left one token of his stay: a photographic account of his voyage from Florida. Today this is among the Francis Parkman papers in the Massachusetts Historical Society.

He returned to Fort Marion in December 1877. The event was recorded by Captain Pratt:

> *We saw a dapper gentleman, with hand satchel, derby hat, and cane pass up the sea wall into the fort with a quick step, and I went to see who it was, and found Howling Wolf had returned unannounced, his eyes greatly benefited, and, in addition, in his dress, manner, and conduct, he had imbibed a large stock of Boston qualities; in fact I was not long in finding out that, in some respects, he had taken altogether too much Boston for his resources and future good.*

Another observer wrote:

> *He returned sporting a pair of blue eye-glasses, with all the airs and graces of a Harvard freshman. So thoroughly Boston had he become in his short absence that it would have been hardly surprising to hear him reply to the usual Indian greeting "How?" with an affected "nicely."*

What success did Howling Wolf have with the treatment his eyes received in Boston? There was an improvement in his vision, however the improvement was not enough to allow him to be included

in a group that stayed on at Fort Marion as volunteers for further education. Sixteen years later he was referred to as "one-eyed."

In May 1878 he and his father were back on the reservation in Western Oklahoma, after an absence of three years. Once back on the reservation, Howling Wolf started out with the best of intentions to follow the white man's way, the new road as it was called. He put on white man's clothes, cut off his scalp lock, chopped wood, planted corn, served as butcher, moderator, and general assistant in the reservation school. But in a few months he knew disillusionment for in a letter he dictated he said:

> *When I hunted the Bufalo I was not poor . . . but here I am Poor. I would like to go out on the planes a gain whare I could rome at will and not come back a gain . . . I think thare is a grate meney wild horse in mexico, and if I should goe thare I could capture a hurd and bring them back hear; then I would not be poor.*

It was in this mood that he painted significant scenes in the cultural history of his own people before they had been forced to settle down to the monotony and purposelessness of life on the reservation.

Specimens of Howling Wolf's work have found their way to the Field Museum in Chicago, the Beinecke Library at Yale, the Massachusetts Historical Society, and the Joslyn Art Museum in Omaha. In this latter museum is a series of 12 pen-and-watercolor sketches. Mrs. Petersen used these to illustrate her book. She noted that "Howling Wolf worked in a commercially-produced drawing pad, outlining his figures in ink, then filling in with color. The fill was usually watercolor, but occasionally ink, or an opaque tempera-like paint." The 12 sketches give a remarkable insight into Cheyenne life. Here might be their chief value. They are entitled "The First White Man," "The First Horses," "Horticulture," "Soldier's Societies," "Return of a War Party," "Scalping," "Buffalo Culture," "Religion," "Horse Racing," "Courtship," "Social Dancing," and "Antelope Hunting." As one with little skill as an art critic, I find some of Howling Wolf's studies a little dark and a little heavy for my taste, however, the last of the series, "Antelope Hunting," has a lightness and grace that is a joy to see.

Howling Wolf could not fit into the pattern of life expected of a reservation Indian. He made an honest effort but failed. With each passing year he became more of a rebel, the hot head, more of the leader of the radical conservative wing of his tribe, more the despair of the reservation authorities. He refused to speak English,

using Spanish or Cheyenne as the occasion called for. He fought against the partitioning of the reservation lands. He fought against selling 3,000,000 acres of the same land for 50 cents an acre. He fought against being forced to live on 160 acres. He fought and he fought and he always lost, although his battles won for him the name of the Red Man's Moses. Born a free Indian, he tried to remain a free Indian. Death came to this proud and talented man on July 2, 1927. He was the victim of a hit-and-run automobile accident.

The second patient to make a mark on society was Case No. 682.

The Surgeon of Case No. 682 was Henry Withington Bradford, M.D. He was born in Randolph, Massachusetts on January 22, 1852. In his day it was possible to enter Harvard Medical School without a college degree. Young Bradford took advantage of this and entered the Medical School at the age of 19 with only a high school education and a three-month preceptorship to his credit. Four years later he graduated and received his M.D. degree with the class of 1875. He began his training in ophthalmology and otology by accepting an appointment as Externe at the Massachusetts Charitable Eye and Ear Infirmary on May 2, 1876.

The program of training in vogue at that time at the Infirmary was more leisurely and informal than it is today. Dr. Bradford "served humble but useful services for five years" before being advanced to the post of Senior Ophthalmic Interne. Then on August 1, 1881, one of the Senior Ophthalmic Surgeons, Dr. Robert Willard, requested the Board of Managers for a leave of absence for the month of August. His request was granted and the 29-year-old Henry W. Bradford was named his substitute and Acting Ophthalmic Surgeon.

On August 4, Dr. Bradford admitted his first case to the house: a boy with an injured eye. On August 6 he admitted for operation, his second patient: a 17-year-old girl from the Perkins School for the Blind. Her case record, still preserved in the Infirmary Archives, reads in part: "Pannus — O.U.: Kerataglobus — O.U.: Vision — Light perception." The name of the 17-year-old blind patient was Annie Sullivan.

At one time the name of Annie Sullivan was a household word, but the day of her importance passed. Then interest in her was renewed a few years ago when a play, and later a movie, based on her life knew success on Broadway. The title of the play was "The Miracle Worker." Dr. Bradford's patient was this Annie Sullivan,

the girl who as a woman was to be world-famous as the teacher and companion of the blind-deaf Helen Keller. If, as the title of the play suggests, Annie Sullivan was able to work a miracle in teaching Helen Keller, then that miracle could only have been possible by the surgical miracle performed by Dr. Bradford.

To correctly appreciate the clinicial and surgical problems the patient Annie Sullivan posed for Dr. Bradford, it is necessary to briefly review the years of her life before she met him.

Annie Sullivan, christened Joanna, was born on April 14, 1866, at Feeding Hills near Springfield, Massachusetts. A look at her birth date shows that she was 15, not 17 as her Infirmary record shows, when she became a patient of Dr. Bradford. Her parents were Thomas and Alice Sullivan; they had immigrated from Limerick, Ireland, about a year before Annie's birth. They chose to settle in the Connecticut River valley because several of their relatives were living there and because there seemed to be plenty of work for unskilled laborers in the tobacco fields.

Thomas Sullivan was everything the anti-Irish faction of the time believed all Irish immigrants to be. He was illiterate, he was dirty, he was shiftless, he was a drunkard, he was ignorant to the point that he allowed his wife and children to grow up in an atmosphere of filth and disease. He had no difficulty in earning the contempt of his relatives and the other Irish of the community. Whatever his faults, he left his daughter with two pleasant memories. One was a moment of brief affluence when he made her happy by buying her a white hat with a blue ribbon and pink rose on it. The other was when he told her not to worry about her eyes, for a single drop of water from the River Shannon would surely cure them; it was that holy.

Annie's mother was a pathetic creature who suffered from tuberculosis and was crippled as the result of an accident. She did her best for her family, always hoping for the intervention of the blessed Virgin when problems became too much for her limited abilities. Knowing no better, she tried to cure her daughter's eyes by washing them with geranium water. One of her daughters died of malignant fever. Her only son as a baby developed tuberculosis of the hip.

Then one day Alice Sullivan quietly died and left her husband, her household, and her children to the care of her half-blind eight-year-old daughter Annie. The multiplicity of tragedies that befell his family was too much for Thomas Sullivan. In time he disappeared and abandoned them. It is thought he went to Chicago to

work on the railroads. There is some evidence that he finally committed suicide.

The relatives, poor to the point of disbelief, could make a home for his one healthy child. As for Annie and her crippled, tubercular little brother Jimmie, all they could think of was the tender mercies of the Commonwealth of Massachusetts and its Tewksbury Almshouse. What were those tender mercies and what was the Tewksbury Almshouse? Only three facts will be given, conclusions may be drawn from them. In 1875, the year before Annie Sullivan entered the Almshouse, the Commonwealth spent $1.88 a week to maintain an inmate there; and of the 80 foundling babies received, 70 died before the year was over. The following year, 27 foundlings were received and all of them died.

Annie was eligible to be a ward of the state because she was an orphan, an abandoned child, and she was blind. But she had not always been blind. The records show that she was born with normal-appearing eyes and no visual problems until sometime before her eighth birthday. Then she suffered a virulent attack of trachoma. When the worst was over, her eyes, which had once been a luminous blue, were clouded by dense pannus. Today Annie's case would be diagnosed as Trachoma III or Trachoma IV.

Prior to entering the Almshouse, Annie had been seen once by a doctor for her ocular problems. During her first year in the Almshouse, her eyes were operated on twice. The nature of these operations is not known; all that is known is that Annie's vision did not improve. During her second year as a blind ward of the state, she came to the attention of the Almshouse Roman Catholic Chaplain, Father Barbara. He arranged for her to enter a hospital in Lowell, where she was operated on by Dr. Savory. Again failure. Father Barbara was not easily discouraged. He took Annie to Boston City Hospital, where she was operated on in turn by Dr. Oliver Fairfield Wadsworth and Dr. Henry Willard Williams. In the 1870s these men were two of Boston's leading ophthalmologists. Whatever their surgical therapy, they could not give sight to Annie's eyes.

Everything that could be done for her had been done. Yet her vision remained so blurred that she could only be classified as blind on the public records. The welfare organization of the state was such that there was nowhere for Annie to go but back to the Almshouse at Tewksbury, back with the rejects and unwanted of society, back to the idiots, the syphilitics, the cripples, the unwed mothers, the sex deviants, and the tuberculars, back to where her

little brother Jimmie had died a lingering, painful death. But things had changed somewhat since the time Annie had first become an inmate. Certain economies had been effected. The cost to the state for maintaining an inmate had been cut to $1.75 a week, a reduction of 13 cents.

Annie was an inmate at Tewksbury for a total of four years. She was what the Commonwealth termed her: a blind, illiterate, pauper orphan. She could not spell her own name, simple as it was. She did not know her correct age. She had lost touch completely with her family. Even her friend Father Barbara had been transferred. It seemed she was fated to live and die in the neglect and misery of the Almshouse, as so many before her had done. But not so. Circumstances — fortuitous circumstances — and Annie's own brazen nature worked the first miracle of her life. Much to the surprise of the few who knew her, and almost certainly to her own surprise, Annie found herself on October 7, 1880, transferred from the Almshouse at Tewksbury to the Perkins Institute for the Blind, then in South Boston.

Annie's career at Perkins was stormy from the outset. So violent was her temper, so earthy her language, so unbending her nature, that the staff requested she be sent back from whence she came; they considered her to be unteachable. Only the understanding of the director saved her.

In keeping with a policy then in effect at Perkins, she was put out to work as best she could in a private home during her first summer. The private home had lodgers, one of whom told her of the one place in Boston where she had not gone with her ocular problems. That one place was, in Annie's later words, the wonderful Massachusetts Eye and Ear Infirmary. She bullied an old man into being her guide; together, on the morning of August 6, 1881, they walked from South Boston to the Infirmary, which was then located on Charles Street at the site of the present Infirmary Nurses' Residence. She entered the side door as all patients were required to do; only the Managers and Surgeons could enter the front door. She waited her turn on the wooden benches. Before the morning was over, she met Acting Surgeon Bradford and was accepted as his patient. She became Case No. 682 in Volume 4 of the Infirmary's Patient Records.

In general terms, Annie's ocular problems were not unique to the staff of the Infirmary. No other disease was as well represented to them as granular conjunctivitis and its sequelae. In ten years' time, they had treated more than 3,000 cases and almost half of

their hospital beds were regularly occupied by such patients. What was to be different was the surgical procedure Dr. Bradford elected to use on Annie. In 1881, the year in question, two other patients had been so treated, and failure had marked both cases.

An insight into how Dr. Bradford regarded Annie's case can be gained by consulting the literature available to him. She suffered from Pannus — O.U. and Kerataglobus — O.U.

It was then the belief that kerataglobus was not always congenital, that the affection did not appear to be due to an increased secretion of aqueous humor, but to a thinning and diminution in the power of resistance of the cornea, following generally upon severe and extensive inflammation of the cornea, as, for instance, vascular corneitis or pannus. This fits in part the description of Annie's case: Her eyes had been normal; her problem began with an attack of trachoma and the subsequent pannus. The literature further states that treatment unfortunately was all too often of little avail. Some relief, some vision could be expected from a large iridectomy. For very inveterate cases, an operation known as circumcision of the cornea, syndectomy, or peritomy could be done. Dr. Bradford chose to perform a peritomy on Annie's left eye. The operation was performed on August 10 with the patient under ether.

In brief, the operation consisted of excising quite close to the sclera a perilimbal ring of conjunctival and subconjunctival tissue, moving close to the edge of the cornea. Large vessels upon the cornea were divided near its edge. Cold compresses were then applied. The pain, photophobia, and lacrymation generally disappeared in about 50–60 hours. In a keratoglobus eye, this procedure came very close to being heroic. The rationale behind the operation, expressed in crude terms, was to "starve" the pannus. In successful cases, this is what seemed to happen. The pannus thinned, and in time disappeared, sometimes leaving a clear cornea. Annie Sullivan was one of these successful cases, one who knew the miracle of sight after years of gray monotony.

When she entered the Infirmary on August 6, her vision was only light perception. When she was discharged on November 11, more than three months later, with her left eye — the one that had been treated — she could read the second line of the Snellen chart at three meters and Jaeger No. 8. In spite of the condition her cornea must have been in, she had a true sense of perspective and distance. She could make out words on the printed page. She could look out of her window and see the bricks of the Infirmary walls,

she could look beyond and see the Charles River, and she could thread a needle. She was a free woman. At this time she made a decision to become a teacher of the blind.

She returned to Perkins and almost a year to the day later, August 7, 1882, she entered the Infirmary for a second operation, this time on her right eye. Dr. Bradford's notes are disappointingly brief: "Annie Sullivan, 18, Iridectomy O.D. down and in. Good pupil. With ether." From other sources we learn that this second operation was as successful as the first.

It would be pleasant to report that these operations marked an end to Annie Sullivan's ocular problems, that she knew a permanent cure. Such was not the case. In September 1886, the year she graduated from Perkins, she again entered the Infirmary as a house patient of Dr. Bradford. Her record tells a sad story: "Diagnosis: Granulations — O.U. long standing duration. Corneal opacities — O.U. and vascularity. Vision O.U. — counts fingers at 1/2 meter."

Dr. Bradford decided to treat both the corneal opacities and the conjunctival granulations. His therapy, medical rather than surgical, was the frequent applications of one percent solution of Jequirity. Jequirity, the ophthalmic wonder drug of the time, was prepared by macerating a 1/2 ounce of the scarlet and black beans of *Abrus precatorius* for 24 hours in 1 1/2 pounds of cold water. This infusion, brushed on the conjunctiva, produced an ophthalmia characterized by considerable swelling of the lids, croupous membranes on the conjunctiva, and a copious muco-purulent discharge. The inflammation subsided in 10–12 days, and often the granulations were gone and the pannus knew some clearing. Annie submitted to this treatment and was a patient in the Infirmary for 17 days. When she left, she was able to read the first line of the Snellen chart at one meter. A slight improvement. This was the last time Annie Sullivan was a charity patient in the Infirmary, the last clinical record available to us.

The following spring she had her rendezvous with destiny when she went south to Alabama and met for the first time the seven-year-old blind-deaf little animal whom she was to teach and minister to until she became the gracious Helen Keller.

Throughout her life Annie Sullivan never had more than the barest amount of useful vision. Something of her ocular history after she left the care of Dr. Bradford can be learned from Helen Keller's biography of her. The book has the intriguing title *Teacher — Annie Sullivan Macy — A Tribute by the Foster-Child of Her Mind.*

Helen wrote that Annie read books with the pages almost touching her eyes and that she moved her head from side to side as she read. She goes on to say that Annie's eyes were always sick, although they were not unpleasant to look at like the eyes of many with defective vision. When Helen was working for her degree at Radcliffe College, Annie read to her five or more hours a day; and eyes treated so pitilessly, almost failed. Time and again she consulted ophthalmologists, treatments and operations followed one after another, but the problem eyes remained a problem.

Almost twenty years after she had first been treated by him, Annie took Helen to meet Dr. Bradford, who was living in semi-retirement in Wolfeboro, New Hampshire. Her vision was so poor she could no longer be sure of her movements in strange places. The conjunctival granulations he had treated still persisted. He prescribed alum drops to remove them.

During the last few years of her life, Annie Sullivan Macy became a patient of Dr. Conrad Berens of New York. By this time she could not read with her naked eyes or with ordinary glasses. Dr. Berens prescribed frequent drops and double-lensed telescopic glasses. These weighed heavily on her face and she did not tolerate them for any length of time. Helen provides an overly dramatic picture of Dr. Berens imploring Annie with tears in his eyes to follow his carefully thought-out treatment. But neither he nor Helen nor anyone could induce Annie to spare herself. She would willfully abuse her eyes. As with his injections, Berens knew no success with his surgery. At the end, her vision was reduced to light perception, exactly the state it had been when, as a 15-year-old girl, she had first stood before Dr. Henry W. Bradford in the Out-Patient Clinic of the Massachusetts Charitable Eye and Ear Infirmary. Gray shadows were all Annie Sullivan Macy could see before she died in New York on October 20, 1936. She was seventy years old.

Her surgeon, Henry Withington Bradford, M.D., was named an Ophthalmic Surgeon at the Infirmary in 1887. He seems to have been cut from a somewhat different piece of cloth than his fellow Surgeons. They were quite Bostonian and conservative in their medical and surgical thinking. He was eager to take on problem cases such as Annie's and try experimental surgery. During the time she was his patient, he attempted a corneal transplantation on another patient, using the cornea of a fish. Here he knew failure. Inspired by a report from France, he transplanted a rabbit's eye into a human socket. This piece of work was attempted at the same time by Charles May, M.D., of New York and Lucien Howe,

M.D., of Buffalo. In Bradford's case, the globe remained "viable" for three months with full movements before it went on to phthisis bulbi. His final paper on the subject was delayed in publication by a protracted attack of iritis that withdrew him from his professional work for some time. Hasket Derby, M.D., did not approve of the newspaper publicity engendered by this experimental surgery and told Bradford so.

Shortly after cocaine was introduced, Bradford conducted experiments on himself to test its efficacy. There is no record that from this he knew the tragedy that marked Halsted of Johns Hopkins. He designed a hand electromagnet that saw service in the Infirmary for many years. In 1899 he gave up his Infirmary appointment and his office at 6 Beacon Street to go into semiretirement. The reason: crippling arthritis. Dr. Bradford died of diabetes and pneumonia at his home in Wolfeboro, New Hampshire on April 30, 1927.

This then is Case No. 682: a case whose clinical picture was all too common at the Infirmary in the nineteenth century and the early years of the twentieth century. It is also the story of an Infirmary charity patient who would not be beaten, who would not remain anonymous.

One last case report:

March 8, 1853
No. 45 Hooper
Patrick Fallen Ireland New York
56 years.
Effusion of blood in anterior chamber of left eye.
Patient was under treatment in the Eye Infirmary of New York. In search of further advice he walked on here, *was about ten days on the road. Says appearance of Left Eye was brought on by the frost.*

The case closes with these words:

April 14.
This patient's wife came on here in great distress for her husband. No improvement has taken place in patient's eyes and as there seems little chance of any benefits by further treatment he is
Discharged, No improvement.

★ 8 ★

Education

In the House and Out of the House

One of the reasons advanced in 1825 by Reynolds and Jeffries for there to be an eye and ear hospital in Boston was that the institution could become a teaching center. "Such an establishment would open to the entire medical profession a wide field of observation, and afford medical students an opportunity of seeing, in a short time, many of the various eye diseases, and enable them to develop diagnostic and therapeutic acumen. In time the public would derive benefit when the new, well-trained practitioners would certainly bring relief to many suffering members of the community regardless of class."

There was little the Surgeons and Managers could do toward this end until the Jeremiah Belknap bequest of $1,000 in 1830. Then the Managers authorized the Surgeons to appoint a medical gentleman to be Apothecary for $50 a year and to import for the institution such anatomical preparations in wax as they may require to enable them to give a course of lectures on the subject of diseases of the eye and ear. This they could do provided the cost of the anatomical preparations was not more than $140.

Three days later, August 1, 1830, the Surgeons appointed Edward Jones Davenport to be the first Apothecary to the Infirmary, and thus began a program of education *in the house* that in time would develop into today's resident and fellow training programs. A little more than a year later, when they received the anatomical preparations in wax, they began a program of training *out of the house* that today is represented by the teaching of Harvard Medical School students and others by Infirmary staff members. Only the nineteenth century portion of these stories will be narrated in this chapter.

I. OUT OF THE HOUSE

It took over a year for the anatomical preparation to be shipped from Leghorn, Italy, to Boston. By the time the insurance on the shipment, postage, freight charges, exchange rates, and commissions were paid the total cost was $200.78 — a figure much in excess of that authorized.

In the October 18, 1831, issue of the *Boston Medical & Surgical Journal* the following advertisement appeared:

LECTURES ON DISEASES OF THE EYE

A course of Lectures on Diseases of the Eye, will be given in the rooms of the Massachusetts Charitable Eye and Ear Infirmary, to commence on Wednesday, the 9th of November, and continue twice a week on Wednesday and Saturday.

The demonstrations of the anatomy of the organ will be much aided by improved wax models just received by the Institution from Italy.

The pathology of the eye will be explained by illustrations from cases which attend the Infirmary.

The lectures will be delivered in the afternoon at half past three o'clock, which will afford opportunity to Medical Students to attend.

Oct. 9, 1831 *JOHN JEFFRIES*

The lectures are delivered for the benefit of the Infirmary.

The advertisement appeared in three subsequent issues of the journal that year. The following year there were no advertisements of lectures at the Infirmary.

It is not known how many attended the lectures, or if any fee was charged. It is known that the Managers met, from the Infirmary's funds, the costs of the advertisements and the extra salary of the porter for the eight-week course.

Reynolds and Jeffries had occasion to comment on the Infirmary as a training center in their report for 1832: "As a school of practical knowledge of those diseases which come under its cognizance, it has become more known and more appreciated. The number of students which have attended its weekly ministrations during the past year, all of whom have become much interested in this branch of their profession."

Jeffries's special course of lectures on diseases of the eye was part of a pattern of medical education that was becoming common in Boston. It had its roots in dissatisfaction with the state of medical education in general and with Harvard University's College of Medicine in particular.

During the early decades of the nineteenth century, medical education in Massachusetts made use of the preceptorship. Under this system, a young man interested in becoming a doctor was required to spend three years "reading medicine" in the office of a qualified medical practitioner. He would then go on to attend two courses

of lectures at a medical school. In Boston that medical school was Harvard University's College of Medicine. It was the only school in the eastern portion of the state legally authorized to grant the degree of Doctor of Medicine. With such a degree, it was almost automatic for the young doctor to obtain his license to practice medicine.

It was argued that the value of a preceptorship depended upon the habits and inclinations of the instructor involved. The value might be great, or it might be nonexistent. Some students were able to see many cases of disease; some none at all. The amount of "reading" a young man could do depended on the size of his preceptor's library, the amount of time he was allowed, and the amount of time his preceptor was willing to spend with him. There are tales of young men spending more time caring for their master's horses than they were allowed to spend with books. "Reading came to be thought of as an uncertain method, one that often resulted in a low standard of medical education."

Harvard did little to raise that standard. "It was the seat of conservatism, a proprietary institution run by a few families, its leaders supporting the interests of themselves and their relatives and friends." Instruction was given only four months a year. There were few clinical demonstrations; lectures dominated the scene.

There were too many well-trained and thinking men in the medical circles of Boston to allow this state of affairs to continue without making an effort to change things. Their answer was to put an end to reliance on the preceptorship system, and to supplement, but not to oppose, the University instruction. This was done by giving courses of private lectures and by establishing small private schools.

The trend began in 1827 when Walter Channing advertised a course of lectures in midwifery. He was soon joined by others offering private special courses, including our own John Jeffries and his course. In time some of these lecturers banded together to form private schools. The most important of these, the Tremont Medical School, opened its doors in 1838. It was designed to give instructions in all branches of medicine throughout the year. Edward Reynolds was a member of the faculty. He gave 80 lectures a year on surgery and anatomy, many of them on the eye and the ear. From time to time, he was joined by George Bethune. They used patients at the Infirmary for clinical demonstrations.

Jeffries, Hooper, and Dix decided to go into the special private medical school business in the winter of 1838. They advertised that they were associated for the purpose of instructing in all the branches

of medicine and surgery. The pupils would have the use of an extensive medical library, opportunities for seeing the practice of one of the districts of the Boston Dispensary and of the Eye and Ear Infirmary and of attending a course of lectures on diseases of the eye. The school was not advertised the following year.

The Tremont Medical School knew success. Another equally successful private school of the time was the Boylston Medical School, incorporated in 1847. This faculty were all young men, most of them with training in Europe, who were anxious to bring about reforms in the profession. Edward Hammond Clarke lectured on diseases of the ear, the first such course to be offered in the city. Henry Willard Williams lectured on diseases of the eye. The facilities at the Infirmary were available to Clarke; those at the Boston Dispensary were Williams's to use.

In one of the Infirmary's ledgers, there is a list of students who attended lectures and demonstrations at the Infirmary in 1849–50. There is nothing to indicate their medical school affiliation. There were eight men in the first year and ten in the second year. Eleven of their number went on to take their M.D. degrees at Harvard. They came from as far away as Simcoe, West Canada, and Ceara, Brazil. In time two held appointments as Assistant to the Surgeons at the Infirmary: T. R. Owens and J. P. Reynolds.

A review of what it was like to be a medical student in Boston in those years is given by Hasket Derby, when he writes of his medical education:

> *By the late 1850's instruction of an official kind at Harvard was given solely by lectures which took place every day at the college building on Grove Street. These lasted through the winter and a portion of the spring months. The rest of the year students spent in a physicians office or in self-conducted courses of study. In Boston the Tremont Medical School, was conducted by Professors of the Medical School, and was intended to act as a supplementary means of education. Here were daily recitations in anatomy, surgery, and the like by professors of the departments. These recitations were supplemented by dissections at the College and visits at the Massachusetts General Hospital, the only important institution of its kind in those days. Such exercises were held in the spring and fall months there being a vacation in the summer. But early in November the scene changed. The college opened its doors and the students from the country, the city, and the British provinces trooped in. The winter lectures were given at the rate of six a day and continued for 4 months.*

They began at 8 A.M. and ended at 2 P.M. What was left of the afternoon was spent in the dissecting room.

Derby often wondered how the students learned as much as they did. As for himself, had it not been for his subsequent hospital experience, he would have been poorly qualified for commencing practice when the time came for him to pass out into the world.

The Harvard Medical School Faculty came to agree with Derby: medical students were not being properly trained in Boston. Their answer was to institute a year-round system of instruction. This was done by "absorbing" the Tremont Medical School and by weakening the Boylston Medical School by raiding its faculty of its best members. In their 1858 catalog, they announced that one of the courses the pupils were advised to take was Diseases of the Eye and Ear. Thirty-four students were enrolled in the Medical School that year.

In Harrington's history of the Medical School, the Massachusetts Eye and Ear Infirmary is first mentioned in the "Courses of Instruction for the Year 1865–1866." In the Spring term, the Summer term, and the Autumn term, clinical instruction was to be given at the Eye and Ear Infirmary. During the Winter term, clinical instruction was to be given in the Ophthalmic Clinic of Boston City Hospital.

Harvard Medical School Faculty's attempts to upgrade itself were not enough to please everyone. The critics continued to describe the school as being a private corporation, as being really a private medical school where most of the fees collected from the students went into the pockets of the individual teachers. Those teachers were accused of keeping the student body large and their group small so there would be a maximum of fees to fill a minimum of pockets. As for the School's academic stature, one observer noted: ". . . Harvard Medical School was a poor thing, unworthy to be associated with Harvard College." Another said: "The students were noticeably inferior in bearing, manners and discipline to students of the other departments of the University." "It was, to speak plainly, a money making institution not much better than a diploma mill."

All this changed with the reforms begun in 1870–71 by President Charles W. Eliot. He insisted that the old course of instruction be abandoned, and that a three-year course, progressive in nature, with both winter and summer sessions, be instituted. He put an end to teachers being paid directly from fees collected from stu-

dents. At his urging, the courses were enlarged, entrance examinations made more rigid, and the whole school put on a sound basis. One of his innovations was to work for the creation of separate departments for the emerging specialties of medicine. Here ophthalmology and otology knew attention.

A financial note is in order: In 1870–71 the total income from all sources of Harvard Medical School was $30,496.67.

During the years just prior to the Eliot reforms, ophthalmology and otology were taught at Harvard by Staff Surgeons at the Infirmary and at the Boston City Hospital — ophthalmology at the Infirmary by Hasket Derby and B. Joy Jeffries, and by Henry Willard Williams at Boston City; otology by Clarence J. Blake at the Infirmary, and by J. Orne Green at the City. The pattern of instruction in ophthalmology began in 1866 and in otology in 1869. The ophthalmic lectures were few in number and treated as fragments only of the general subject, and the audiences — never large — included but a few students.

Some of the men named above held Medical School Faculty appointments as University Lecturers. A University Lecturer held office for one year only. They could be nominated for their first term, and for subsequent terms, only by the Professors of the departments most interested, and only at stated meetings in October and February. It is thought they served without pay. Under the Eliot program, this faculty position was eliminated in 1871. Then Blake and Green were named Lecturers on Otology. Ophthalmology was made a separate department, and Henry Willard Williams was named its head and the School's first Professor of Ophthalmology. It spite of the services they had rendered, Derby and Jeffries were not given appointments. This meant that the only Harvard Medical School Faculty appointment at the Eye and Ear Infirmary was that of Blake's Lecturer on Otology.

When the Medical School Faculty created the Department of Ophthalmology and named its first Professor, Henry Willard Williams was a man they could not ignore; he had to be considered.

Williams was born in Boston on December 11, 1821. Before beginning the study of medicine, he spent some years as secretary and publishing agent for the Massachusetts Anti-Slavery Society. He enrolled in Harvard Medical School in 1844, leaving there to go to Europe for three years, where he took up the study of diseases of the eye. He received his M.D. degree from Harvard in 1849. In keeping with local tradition, he took an appointment as District Visiting Physician to the Boston Dispensary. It was not long before

he was able to have sufficient clinical material from that institution and from other city institutions to give a course of lectures on diseases of the eye to a class of Harvard Medical students. He continued the course for several years. In time he became connected with the Boylston Medical School, and here he also lectured on diseases of the eye. The Dispensary elected him Surgeon. All this activity earned him a reputation, so that his practice became such that he was able to devote his whole time to ophthalmology.

His reputation as an ophthalmologist, a teacher, and, it has been conjectured, his political position in Boston, stood him in good stead when the Boston City Hospital opened in June, 1864. Williams was the only specialist named to the Hospital's 13-member staff. At first the City Hospital had three divisions: the Medical, the Surgical, and the Ophthalmic. Williams had his own beds, operating room, outpatient clinic, and the only special externe — Edward Greeley Loring. On the Board of Consultation were Edward Reynolds and John Jeffries, cofounders of the Infirmary. They gave strong backing to his department.

The historian of the Boston City Hospitals writes:

> *The ophthalmic department, although small, was one of the finest in the hospital. The rapid growth of the department was perhaps one of the most outstanding features of the early days of the hospital. A large number of operations were performed and the attendance of the out-patient department for diseases of the eye almost equaled in numbers that of medicine and surgery combined. As the hospital grew in the next few years the number of ophthalmic house patients ran about one in six of the surgical cases, but in the out-patient department this special field counted for nearly half the total cases of the hospital.*

Williams published in the *Boston Medical & Surgical Journal* two special reports telling of his department's work in the first seven months of his tenure. They make for interesting reading. For several years the department was run with the aid of one externe. It was very much a one-man show. It was here, in new and up-to-date quarters, as University Lecturer he taught Harvard students; and it was here he would teach them as Harvard's Professor of Ophthalmology.

There was another point in Williams's favor: He was a medical writer of note. In 1862 he published *A Practical Guide to the Study of Diseases of the Eye*. In 1865 he won the Boylston Prize with his essay *Recent Advances in Ophthalmology*. Here he wrote on the use

of sutures in cataract surgery. He was the first to use this procedure. In 1881 his largest book, 476 pages, entitled *The Diagnosis and Treatment of Diseases of the Eye*, was published. Although conservative in tone, the books were excellent, knew acceptance, and subsequent editions. The list of Williams's journal writings fills seven closely printed pages.

To repeat a remark made earlier: When the Medical School Faculty created the Department of Ophthalmology and named its Professor, Henry Willard Williams was a man they could not ignore; he had to be considered. Although the Infirmary's Hasket Derby was brilliant and its Jeffries good, Boston City Hospital's H. W. Williams was their senior and demonstrated superior. Although the Infirmary had a greater number of patients, the one-man show at the City could have been better suited for teaching. In 1871 it made good sense to many for Harvard to name Henry Willard Williams its first Professor of Ophthalmology.

Hasket Derby did not agree. He had earnestly wanted the appointment and had worked hard to get it. There were those who said he deserved it. On some counts they could prove their contention. They pointed to one of his University Lectures: "The Modern Operation for the Treatment of Cataract," published in the *Boston Medical & Surgical Journal*. It is found to be a fine exposition of the subject and an excellent piece of medical writing. He fails, however, to mention Williams's suture in his text. This cataract lecture may well have been the one to which he admitted the four female medical students and thus earned for himself the criticism and correction of the conservative wing of the Medical Faculty.

In 1871 there was no compulsory retirement age for men who held appointments on the Harvard Medical Faculty. Williams was 50 when he was appointed. By the natural course of events, it could be a long time before he would voluntarily give up the post. And it was. For twenty years the official Harvard Medical School courses in clinical ophthalmology were given in the ophthalmic department of Boston City Hospital by Williams. During those twenty years, not once did Williams make use of the talent and facilities at the Infirmary, although they had been generously offered to him. When the pressure of work built up in his Boston City Hospital ophthalmic department, he advanced his own externes to surgical positions. The same was true in Harvard's Department of Ophthalmology. The career of one man, Oliver Fairfield Wadsworth, illustrates this. At Boston City, Wadsworth moved from House Officer, to As-

sociate Surgeon, to Ophthalmic Surgeon. At Harvard he was named Clinical Instructor in Ophthalmoscopy, the only appointment in the department other than Williams's.

Williams's program for instruction called for lectures to be given once a week during the school year at Boston City Hospital, and clinical instruction once a week for six months. No examination was given, and the attendance by the students was irregular and scanty. When the advisory fourth year was established in 1880–81, ophthalmology was made an elective for the fourth-year students, with an examination at the end of the year, and clinical instruction being offered twice a week for six months. The advisory fourth-year program was not a success. Few students took advantage of it and fewer still elected ophthalmology. In 1888–89 ophthalmology was made an elective for students of the third class also, and it was chosen by a small number.

The Board of Surgeons of the Infirmary did not lose heart entirely when the Harvard appointment and clinical instruction in ophthalmology left the Infirmary to go to Boston City Hospital. At one of their meetings during this period, they voted that throughout the year students of Harvard Medical School were invited to visit the Infirmary for clinical instruction in ophthalmic and aural medicine and surgery, two days in the week during the Infirmary hours of from 9 to 11 A.M. This vote they officially communicated to the Harvard Medical Faculty. There it received rather cavalier treatment. The Surgeons had to write to Harvard twice asking that statistical errors regarding the Infirmary in the school's circulars and catalogs be corrected, and to repeat that clinical instruction was given twice a week, namely on Mondays and Fridays throughout the year and also that important operations were frequently done.

If few students elected to attend Harvard's official lectures on ophthalmology by Williams and Wadsworth at Boston City Hospital, it is safe to surmise that very few indeed availed themselves of the opportunities for ophthalmic education at the Infirmary. This could not have been true of aural education, for the Infirmary was officially designated as one of the hospitals for instruction in that discipline; and one of the Infirmary's Aural Surgeons, Clarence J. Blake, held a Medical School Faculty appointment. The subject of aural instruction at the Infirmary and the Aural Department of Harvard Medical School has been narrated in the chapter "Otology at the Infirmary in the Nineteenth Century."

For some years the Medical School had tried the idea of an

advisory fourth year. The program was not a success, nor was it popular with the students. Many of them reasoned why attend school for four years when you could get your degree in three. In April 1888 a committee appointed to investigate the matter reported back that they favored a compulsory fourth year. Now, the faculty had to determine if a compulsory fourth year was practical, if there was enough medicine to be taught to fill the time, and if there were enough qualified men to do the teaching.

To explore the state of otology, Henry I. Bowditch, M.D., Dean of the Faculty, wrote to Clarence J. Blake, M.D., Clinical Instructor in Otology and Aural Surgeon at the Infirmary. Blake replied, outlining what had been done to teach otology and what could be done under an expanded program. The same day he wrote to Bowditch, he wrote a similar letter to J. Collins Warren, M.D., President of the Infirmary Board of Managers, on how the Infirmary and its clinical facilities could be utilized to accomodate an increased load of teaching. Encouragement came to Blake from both men. On April 13, 1888, the Board of Surgeons agreed to the Blake plan for a division of the Surgical Staff and the instituting of an expanded program of aural instruction for Harvard students and others. As narrated earlier, the Managers agreed with the Surgeons' vote on every point. In their official "blessing," they expressed the hope that the Infirmary Ophthalmic Surgeons would bring forward a program for instruction in their service that would be the equal of the Aural Surgeons program. As the Infirmary system did not allow for there to be a Chief-of-Service, President Warren chose to repeat the message in a letter to Hasket Derby, Senior Ophthalmic Surgeon.

Derby was prompt in making a reply. He wrote to Warren that he had been on the point of calling a meeting to consider the matter, but it occurred to him that a personal letter from him should precede such a move. He pointed out that the Ophthalmic Department was somewhat differently situated from the Aural Department. The Senior Aural Surgeon, Blake, had an official connection with the School of Medicine and had been requested by the School to prepare a plan of instruction. No one in the Ophthalmic Department had any connection whatsoever with the School and no member had been approached by the Faculty. Then he asked a pointed question: "Might it not therefore seem a little officious on our part were we to formulate a plan of instruction in advance of any request for such action from the School itself?"

He went on to write that when the Chair of Ophthalmology

was created and filled, he had sent a letter to the Dean, congratulating the school on the fact, and offering any facilities the Infirmary might be able to furnish in aid of the instruction of the new department. No notice was ever taken of his letter. As for himself, he would be glad to instruct at the Infirmary. But before that could come about, before any instruction by anyone could take place, there would have to be major changes in the scheduling of the Surgeons' services. He then gave his plan for such changes. If agreed upon, he, Derby, would have the service of the winter months, the prime time for teaching the Harvard students. His letter closed with the statement that he did not know if his colleagues, his equals on the Surgical Staff, would agree with him in the matter of rescheduling; in fact, he doubted if they would.

There the matter rested until the fall meeting of the Board of Surgeons. Blake, who by this time had instituted his program of instruction in the Aural Department, raised the question of clinical instruction in the Eye Department. The subject was referred to the Ophthalmic Staff for such action as they should think advisable. This was a time for Hasket Derby to make use of his often tested skills as a leader and a doer.

He began by recruiting the support of Edward I. Browne, Secretary of the Infirmary Board of Managers. He told Mr. Browne that a meeting of the Ophthalmic Surgeons would be held in a few days to consider the question of systematic instruction to students in the department. A request, that he had regarded as essential, had come from the Medical School Faculty. Now all that remained to be done was to tackle the thorny problem of rescheduling of the Ophthalmic Surgeons' services. To overcome the anticipated great difficulties, he asked Browne to arm him with a letter stating that it was the earnest wish of the Managers that the Infirmary's large clinical material should be utilized in the future for the purposes of instruction and that a regular course or courses of instruction should be organized. Without such a letter, he was convinced that nothing could be done.

The following day, Browne provided Derby with the letter he had requested. With the letter and with the communication from the Medical School, Derby was able to receive a unanimous vote from the Ophthalmic Surgeons to give every possible facility for teaching. He was placed in a favorable position to participate in the teaching by the action of Dr. Willard who very kindly made over his term of service and taking Derby's for his own.

An announcement went to Harvard Medical School in time for

the fall term. One paragraph described the Infirmary and its clinical activities. The second paragraph read:

> *During December, January and February Dr. Derby will operate on Monday at a quarter to 9, and will also give clinical instruction till 10, especial attention being paid to the use of the ophthalmoscope and affections of refraction. On Tuesday and Friday he will hold a general clinic from 9 to 11.*

Henry W. Bradford, Ophthalmic Surgeon, would assist Derby in the program. They would serve without pay and without holding any appointment to the Harvard Medical School Faculty.

It must be noted that the instruction at the Infirmary was not the official Harvard Medical School course in ophthalmology. That remained at the City with Williams. The students would come voluntarily to the Infirmary on their own time. The instruction they would receive would supplement the required instruction given them by Williams. Nowhere in the records is there anything to indicate that an attempt was made to correlate the City Hospital's instruction with that of the Infirmary.

Three years later, in 1891, Henry Willard Williams was 70 years old and in poor health. He knew it was time to retire as Harvard's Professor of Ophthalmology and as Chief of the Ophthalmic Service at Boston City Hospital. His resignation did not spell an end to his interest in ophthalmic education, for he took the occasion to offer the University $25,000 in securities as a special fund for the maintenance of a Professorship in Ophthalmology. The University accepted the fund, and thus the Henry Willard Williams Professorship of Ophthalmology came into being.

The resignation of Williams allowed Oliver Fairfield Wadsworth to move into the senior position at Boston City Hospital and, with his appointment as Clinical Instructor in Ophthalmoscopy, to be the only man in the Harvard Medical School's Department of Ophthalmology. This made him a front rank contender for the vacant Professorship. But, there was another man on the scene: Hasket Derby, Ophthalmic Surgeon at the Eye and Ear Infirmary, and a long-time contributor to ophthalmic education at Harvard.

Over the years Derby had mellowed. He wrote of his teaching experiences at Harvard and of his attitude toward an academic career:

> *. . . I was appointed University Lecturer on Ophthalmology at the Medical School, and gave courses of lectures to the students. Sub-*

sequently these lectureships were merged into a professorship, which Dr. H. W. Williams succeeded in obtaining, he being much my senior and possessing considerable influence. I should have been glad to have obtained this position, which Dr. Williams held for many years, and relinquished at a time when I myself was too far advanced in age to compete for it again.

With Derby withdrawing for stated reasons of age, he was 56 at the time, only Oliver Fairfield Wadsworth was left to be considered. Before 1891 ended, he was named Harvard's Professor of Ophthalmology. In 1899, when the Henry Willard Williams Professorship of Ophthalmology became active, he was named to the position, holding it until his retirement in 1903.

Robert Willard, M.D., Ophthalmic Surgeon at the Massachusetts Eye and Ear Infirmary, died on February 6, 1892. A month later, March 5, 1892, the Ophthalmic Surgeons met in special session to consider appointing Dr. O. F. Wadsworth to fill the vacancy caused by Dr. Willard's death. Wadsworth had never held an appointment at the Infirmary. To appoint him to a senior Surgeon's position would delay the line of appointment of the entire junior Ophthalmic Staff. In spite of this, not one vote was cast against him. A week later, the Managers, acting on the recommendation of the Surgeons, named Oliver Fairfield Wadsworth an Ophthalmic Surgeon to the Massachusetts Charitable Eye and Ear Infirmary.

Here is a fact that may have had nothing to do with the above course of events: On October 25, 1892, eight months after the Wadsworth appointment, Hasket Derby resigned as Ophthalmic Surgeon. His length of service to the Infirmary was a few months short of 30 years. With Derby gone, Wadsworth soon became a dominant and valued figure on the Ophthalmic Staff.

In all things, Wadsworth was a worthy addition to the Infirmary Staff. Of an old Boston family, he was born on April 26, 1838. In the tradition of his class, he attended Boston Latin School, Harvard College, and Harvard Medical School, receiving his M.D. degree in 1865. He served a tour of duty as House Pupil at the Massachusetts General Hospital. His postgraduate work in ophthalmology was done at Zurich, Switzerland under Hörner. He was Ophthalmic Surgeon at the Mass General from 1873 to 1900 and was on the Board of Consultation until 1911. His first surgical staff appointment at Boston City Hospital was made in 1870; he held his last appointment there, that of Ophthalmic Chief-of-Service, until his death, although he did little actual service in his later years.

While he was head of Harvard's Department of Ophthalmology, he had two junior members of the Infirmary's Ophthalmic Staff appointed Instructors in Ophthalmology: Frederick Edward Cheney and Myles Standish. With these two young colleagues, he introduced required clinical as well as written examinations into the program. His was the first department at Harvard to do so. Of him, it is written:

> *The conscientious individual consideration he gave to marks awarded to the students was very unusual, kindly and just, although the students generally considered his examinations difficult to pass. Until almost the last year of his professorship he felt it was his duty to teach the students who had elected advanced ophthalmology, and he spent hours patiently teaching the minute observations necessary for difficult ophthalmoscopic diagnosis.*

Oliver Fairfield Wadsworth continued as Ophthalmic Surgeon at the Infirmary until 1905 when he became Consulting Surgeon. He held his Williams Professorship until 1903; he died on November 29, 1911.

It took 21 years and the Surgical Staff appointment of Wadsworth to bring the Harvard Professorship of Ophthalmology to the Massachusetts Charitable Eye and Ear Infirmary. With this done, the Infirmary had on its Surgical Staff three Harvard Medical School Professors: Clarence John Blake, Professor of Otology; J. Orne Green, Professor of Clinical Otology; and Wadsworth with his Professorship of Ophthalmology. By the close of the century, all of Harvard's ophthalmic and aural instruction was at the Massachusetts Eye and Ear Infirmary. There it would remain.

HARVARD APPOINTMENTS IN OPHTHALMOLOGY AND OTOLOGY 1866–1900

Blake, Clarence John
- *Lecturer on Otology*, 1870–75
- *Clinical Instructor in Otology*, 1875–88
- *Professor of Otology*, 1888–1907

Cheney, Frederick Edward
- *Instructor in Ophthalmology (Veterinary School)*, 1887–94
- *Clinical Instructor in Ophthalmology*, 1891–95

Derby, Hasket
Lecturer on Ophthalmology, 1867–71

Green, John Orne
Lecturer, 1869–70*
Lecturer on Otology, 1871–75*
Clinical Instructor in Otology, 1875–88*
Clinical Professor of Otology, 1888–1904†

Jeffries, Benjamin Joy
University Lecturer, 1870–71

Proctor, Francis Ingersoll
Instructor in Ophthalmology (Veterinary School), 1894–1901

Wadsworth, Oliver Fairfield
Clinical Instructor in Ophthalmoscopy, 1881–91*
Professor of Ophthalmology, 1891–99†
Williams Professor of Ophthalmology, 1899–1903†

Williams, Charles Herbert
Instructor in Ophthalmology (Veterinary School), 1883–87

Williams, Henry Willard
University Lecturer, 1866–70*
Lecturer on Ophthalmology, 1870–71*
Professor of Ophthalmology, 1871–91*

II. IN THE HOUSE

In earlier chapters in this book, the statement was made that John Homer Dix was the first Apothecary to the Infirmary and thus the first "resident" to be trained in the institution. This was an error. The first Infirmary Apothecary was Edward Jones Davenport, appointed on August 1, 1830. The error was committed because Jones's name does not appear in any of the documents or minutes of the period. The only place his name appears is on a number of vouchers from the Treasurer's office.

Why did the Infirmary use the title Apothecary? The dictionary states that an apothecary is one who prepares and sells drugs and compounds for medicinal purposes, and that in England the apoth-

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*On the staff of the Boston City Hospital.

†On the Staffs of both the Boston City Hospital and the Massachusetts Eye and Ear Infirmary.

ecary early became a kind of subordinate medical practitioner. In 1828 the House Officers at the Massachusetts General Hospital were called "Apothecary."

In giving the title Apothecary to the subordinate medical practitioner on its Staff, the Infirmary was following the example of the General. His duties were, in part, similar to those of the traditional English apothecary. He was to prepare and deliver all medicines prescribed agreeable to the formula as directed by the Surgeons. He had charge of all medicines, instruments, and apparatus; he had to keep the same in perfect order; and could not lend them or allow them to be used without an order from the Surgeons. When directed by the Surgeons, he performed the operations of bleeding, cupping, and the application of leeches. And last, he must obey all reasonable directions of the Surgeons.

Not only was Apothecary Davenport responsible for the drugs, instruments, and so on in the house, he also had to make purchases of the same. Much of this business he did with John Bacon, who was the Infirmary's landlord and had a shop in the same building as the Infirmary rooms. Davenport's first purchases, other than drugs, were for pill boxes, gallipots, shears, paper, and weights. The cost was $5.75, and John Jeffries approved the purchases. Later Davenport would buy such items as lamps, kettles, skins, pitchers, wrapping paper, and spittoons. He was able to obtain two of the last item for 83 cents. He arranged for Mrs. Whitty to wash the towels at 3 cents a piece, and he paid the board of the patients. For doing such business and his clinic duties, he received $25 every 6 months.

Davenport was Apothecary from August 1, 1830 until August 1, 1834. He was succeeded by John Homer Dix who served from November 3, 1834, until November 9, 1836. These two were the only men to hold the appointment of Apothecary to the Infirmary. In 1837–38, Dix was House Physician, a post whose duties included many of those of the Apothecary.

The original by-laws of the Infirmary called for a staff of two Surgeons and one Apothecary. At the 1833 Annual Meeting, this was changed when it was voted that "The Managers shall appoint two or more Surgeons as they shall judge that the interests of the Institution may require, who shall hold their respective office subject to removal by the Managers." The Assistant Surgeons were required to perform such medical and surgical duties as shall be assigned them by the Surgeons.

The first man named under this by-law was Henry Artemus Ward, who was appointed Assistant Surgeon for Diseases of the Ear. He remained with the Infirmary for two years. During his second year, in 1834, he was joined by Assistant Surgeons Edward Linzee Cunningham and Edward Jones Davenport. These men also stayed with the Infirmary for two years. In 1836 Robert W. Hooper and George A. Bethune became Assistant Surgeons. They did not stay two years; they stayed four years. 1838 saw the appointment of John Homer Dix.

As the Managers saw it, Apothecaries and later Assistant Surgeons were young men of medicine who were to be trained in the house to treat diseases of the eye and ear. In creating the posts and in making the appointments they were ". . . solely actuated by a desire to disseminate as widely as possible the knowledge of that branch of medical knowledge to which the Institution was devoted." In 1840 they formalized their thinking by passing two by-laws. The first: "Assistant Surgeons shall be appointed annually and they shall not retain office beyond a period of two years"; and the second: "The number of Assistant Surgeons shall be two."

There were three Assistant Surgeons in 1840: Dix, who had served two years, and Hooper and Bethune, who had served four years each. That year the Surgeons submitted a list of possible candidates for the post to the Managers. It is not known why no appointments were made from this list. The Managers kept within the spirit of their by-laws by not appointing Dix for a period beyond two years, and by appointing Hooper and Bethune under the new by-laws as if they were new candidates. By this act, the seeds of future difficulties were sown.

The program of training in the house by using Apothecary and Assistant Surgeon appointments lasted 12 years, 1830–42. Six men were involved: Ward, Cunningham, Davenport, Dix, Hooper, Bethune. Ward was the oldest, 36 at the time of his appointment, Dix was the youngest, 23. All of them, with the exception of Dix, had their M.D. degrees when they joined the Infirmary. All of them, again with the exception of Dix, took their degrees from Harvard Medical School; he took his from Pennsylvania. Three of them, Cunningham, Hooper, and Bethune, had undergraduate degrees from Harvard College. And three of them, Dix, Hooper, and Bethune, knew European training in addition to their medical school and Infirmary training. Significant contributions to the literature of otology and ophthalmology were made by Dix, Dav-

enport, Bethune, and Hooper. It could be said that the Managers and Surgeons were quite selective when they made their appointments.

From 1842 until May 1850, there was no in-house training program at the Infirmary. All clinical work was done by the three Surgeons, Reynolds, Hooper, and Bethune. The management of the house was in the capable hands of Mary Homer, Superintendent and Matron. With the new building in 1850 came a new subordinate Staff appointment, Assistant to the Surgeons. The wording of this title is very precise; it is not Assistant Surgeon, not Assistant of the Surgeons, but Assistant *to* the Surgeons. The appointee was to be a young medical man who would know training by working under the direction of the Senior Surgeons and by performing clearly defined minor managerial tasks. He would be paid $100 a year.

To understand the role of Assistant to the Surgeons, here in its entirety is Article 9 from the 1850 *Regulations of the Infirmary*:

> *It shall be the duty of the assistant to attend to the admission of the patients, as directed in the sixth article. He shall be in attendance daily at the Infirmary from eleven to one o'clock, to prepare the medicines, to cup, to apply leeches, and to perform such other duties as the surgeons, with the approbation of the visiting committee, shall direct and require. He shall have the care of all drugs, medicines, surgical instruments, and other articles belonging to the apothecary's department of the infirmary. He shall purchase all medicines and leeches for the use of the house and outdoor patients, under the direction of the surgeons. He shall give such assistance to the superintendent in keeping his accounts and records as that officer may require.*

Fully half the responsibilities given above are the same as those known to the Infirmary Apothecary in the 1830s.

As narrated in an earlier chapter, the program did not function smoothly at the outset. The first appointee, John Phillips Reynolds, served three months; the second, Thomas Robert Owens, served 15 months. The third, John Cauldwell Sharp, for reasons hard to understand, served seven years in this subordinate position. He went on to be appointed Surgeon, as were his three successors to the post of Assistant to the Surgeons: Algernon Coolidge, Gustavus Hay, and Henry Lyman Shaw. The records of the next three appointees are not clear. They were Josiah Brackett Treadwell, William Basilio Mackie, and Horace George Miller. They are followed

by a familar name — Robert Willard. He was Assistant to the Surgeons for 2 1/2 years before being named Surgeon. Five more men held the office until it was abolished in 1873. They were George E. Handy, W. F. Southard, John Gilman, William Austin, and William Pitt Brechin.

The 15 Assistants to the Surgeons had one thing in common: They were all graduates of Harvard Medical School. In age they ranged from 21 to 34 at the time of their appointments. More than half of them had held house appointments at the Massachusetts General Hospital before coming to the Infirmary. Three of them served as District Physicans to the Boston Dispensary. Four of them held undergraduate degrees.

How much time each day did these men have to receive instruction or to treat patients? The regulations called for them to be present from 11 A.M. to 1 P.M. each day. Their clerical and apothecary duties must have taken a good part of those two hours. The work they did, the progress they made, cannot be determined because their names do not appear on any patient records. Here and there in the Operations Ledger, the name of one or another of them appears from time to time as having done a minor operation. Everywhere else in the patients' records, all entries are under the names of the Senior Surgeons. The Assistants' Quarterly Reports to the Board of Managers are all we have in their handwriting. These reports are very routine things, all much alike.

There is no question that the men did receive instruction — good instruction. All of the Senior Staff men were committed to medical education. In the 1860s, three of them — Derby, Hay, and Jeffries — had reputations of being excellent teachers. The Assistants to the Surgeons, if willing, could know only benefit from working under such men. But human nature is human nature and few things change. It can be safely said that the same Senior Surgeons assigned a fair amount of "scut" work to their Assistants, just as do the Surgeons of today. That is what Assistants are for.

The program did succeed in that it prepared five men for the Infirmary Senior Surgical Staff. Four of these men also had private practices in ophthalmology and otology in Boston. Another appointee, Horace George Miller, went on to a special practice of ophthalmology and otology in Providence.

The program could not have succeeded with those men who stayed three months, ten months, five months, six months at the Infirmary, or with those who resigned to join the Union Army, or with those who unhappily died shortly after being appointed.

By 1873 the Massachusetts Eye and Ear Infirmary accepted for training in ophthalmology and otology in the house six men under the Apothecary-Assistant Surgeon program and 15 under the Assistant to the Surgeons program — 21 men in 43 years.

In 1873 the Surgeons began to experience exceeding difficulty in properly filling the post of Assistant to the Surgeons as the office was then constituted. The increased practice of the Infirmary had added to the responsibility and labor of the Surgeons, so that they needed competent clinical and clerical assistance more than ever. There were more hospital appointments in the city open to students than ever before, and the calls on the students' time and attention had become more engrossing. This meant that if the Infirmary wanted competent assistants, it would be necessary to offer greater inducements than had heretofore been done. The Surgeons proposed that the Infirmary adopt the plan that for some time had been regarded as successful at the Boston City Hospital. The plan called for there to be one Interne and one Externe. The Interne was to be either a third-year student or a recent graduate. He was to have room and board at the Infirmary, or, if considered more desirable, to be boarded in the vicinity at the expense of the Infirmary. His entire time was to be given to the service. The Externe was to be a third-year man who was to attend daily during the regular clinic. He would perform such duties as assigned him by the Surgeons and would be eligible to be Interne in event the post became vacant. The Managers would make the appointments on the recommendation of the Surgeons. On May 5, 1874, the Managers appointed William Sawyer Dennett, Jr., to be Interne at the yearly salary of $100. Three months later they appointed Jonas Clarke, Jr., to be Externe at the same yearly salary. Dennett is remembered today as being the first to devise a self-contained electric ophthalmoscope.

The official titles given to the men were Ophtalmic and Aural Interne and Ophthalmic and Aural Externe. This meant the men were expected to work on both Services. After a two-year trial period, it was decided to change the arrangement. The post of Ophthalmic and Aural Interne was retained; the dual Externe post was abolished. Two new posts were created: Ophthalmic Externe and Aural Externe, each with a salary of $100 per year. The men were recruited at Harvard Medical School and were chosen following a competitive examination. They were expected to serve two years. If the post of Interne became vacant, one of the Externes was eligible to succeed.

So went the plan. But, like so many plans at the Infirmary, this one broke down almost at once. Henry Withington Bradford was the first Aural Externe, beginning his duty on May 2, 1876. About a year later, when Jonas Clarke, Jr., resigned after one year as Externe and one year as Interne, Bradford was appointed Ophthalmic and Aural Interne. He held the post for five years. Edmund Doe Spear, who succeeded to the Aural Externe post, also stayed five years.

Having set up the Interne-Externe plan of training in the house, the powers that be at the Infirmary were faced with the problem of what, if anything, they should do for the men they had trained. Fortunately, the growing amount of clinical work provided a partial solution. The Infirmary in 1877 was staffed by five Ophthalmic Surgeons, two Aural Surgeons, one Interne and two Externes. The Board of Surgeons proposed the creation of a new staff position, that of Assistant Surgeon. The men appointed would be expected to fill the place of the Surgeon whenever required by any one of the Surgeons on duty, whether for one day or a longer period of time, as might be required. One or both of them — there were to be two — was to be within reach at all times. In filling the place of the Surgeon, they were to follow any directions given by the Surgeon in the care of his patients, but in other respects he was to have the same authority and be subject to the same rules as the Surgeons. Such an appointment would not of necessity lead to a full Surgeonship. The Board of Managers approved the plan and appointed William S. Dennett and Charles H. Williams to the posts. Williams was not Infirmary-trained. He had been trained at Boston City Hospital under his father, Henry Willard Williams.

For many years there were not enough vacancies on the Assistant Surgeon Staff to take care of all the Infirmary graduates. Some of them, in search of additional training and experience, accepted appointments at Boston City Hospital as Assistant to the Ophthalmic Surgeons.

As the Infirmary increased its size and the number of its beds, so the duties in the house increased and they became too much for one Interne. A second Ophthalmic and Aural Interne was appointed. The Surgeons and the Managers took the occasion to redefine the position. The Surgeons required that the appointees be either students of medicine or graduates of medicine. One condition of the appointment was that no Interne was to have any professional engagement or practice independent of that of the Infirmary during his service. Appointments would be the result of

competitive examination, and the term of service was to be two years. The titles were to be First Interne and Second Interne. The First was to receive $100 a year, the Second $50. The Second was to be eligible to succeed to the position of the First. Both men were to live in the house and have their meals there. The Managers voted that the Internes not be allowed to receive guests at the Infirmary, either as lodgers in their apartments or at the Infirmary table. Both Internes were expected to be in attendance at the Infirmary daily until noon, after that one always in attendance. If these rules were broken, the Superintendent was to report the matter to the Managers. Myles Standish and H. Beckles Chandler were given the appointments.

At the time the Surgeons asked to increase the number of Internes to two, they also asked that the number of Ophthalmic Externes also be increased to two. The men should be students of medicine or graduates and would perform such duties as might be required of them. They were to serve not more than two years and would be considered when the post of Interne became vacant. The salary was $100 a year. Appointments were made. But a year later the Surgeons informed the Managers that the principal duty of the Ophthalmic Externes was a clerical one and that it was exceedingly difficult to obtain students or graduates to fill the positions satisfactorily. They thought it would be greatly to the advantage of the Infirmary to substitute the two Ophthalmic Externes for one paid nonprofessional clerk. The Managers agreed, abolished the post, and hired a female recorder at $200 a year.

Until 1888 the Infirmary had in its surgical and clinical affairs functioned as a single unit, although there were two services — Ophthalmic and Aural. Patients of both services were cared for in the house by the Ophthalmic and Aural Internes. Only the Aural Service made use of an Externe. In 1888, the year the Surgical Services became separate in organization, the Aural Service added a second Externe to its Staff. Two years later the title of this position was changed to that of Aural Clinical Assistant. New title or old title, the post did not solve all the needs of the Aural Service. The Aural Surgeons asked the Managers to create the post of Aural Interne, exclusive to the department. They pointed out that they had no house officer, that the present Ophthalmic and Aural Interne was devoted exclusively to the Eye Department. The serious nature of the cases which entered the Aural House Service, the proper keeping of surgical records, the assisting at operations, the amount

and nature of the work, all required the services of a person with medical training who would be in constant attendance.

This reasonable request led to the abolition of the dual appointment of Ophthalmic and Aural Interne. In its place in 1891 came into being the appointments of Ophthalmic Interne and Aural Interne. Eugene Crockett was the first Aural Interne, and Francis Ingersoll Proctor was the first Ophthalmic Interne. More than a generation later, Proctor and his wife would found and fund the Proctor Laboratory in San Francisco.

The titles remained Ophthalmic Interne and Aural Interne until 1893, when they were changed to Ophthalmic House Officer and Aural House Officer. By this date, Harvard Medical School and several other medical schools had four-year programs. To recruit men for the Infirmary positions, the Surgeons placed notices in the *Boston Medical & Surgical Journal*, sent announcements to Harvard, to medical schools in New York and Philadelphia, to the Manhattan Eye and Ear Infirmary, and to similar hospitals telling of the position and the time and nature of the examinations. In spite of this attempt to gain men from areas other than Boston, roughly 75 percent of the men appointed were graduates of Harvard Medical School. Each Staff had full control of the examinations and nominations of its own House Officers. Once nominated, the candidate had to be approved by the Superintendent and then appointed by the Board of Managers. They could be removed from their office by the Managers with such allowances as the Managers would from time to time determine.

The Aural Surgeons decided that one Aural House Officer should be appointed on January 1 each year and that his term of service would be for 15 months from that date. After leaving the Infirmary, many of the Aural House Officers went to the Massachusetts General Hospital for training in laryngology. Laryngology was not practiced at the Infirmary, only otology and some rhinology. The Aural House Officer received his room, board, laundry, uniforms, and $50 a year. The Ophthalmic House Officer received the same, but his stipend was $100. Blake thought this unfair. He wrote to the Managers that ". . . the arrangement made an invidious distinction between the Ophthalmic and Aural Internes, not justified to the character or the amount of service rendered." The distinction was corrected.

At first the Ophthalmic House Officer knew a service of two years. This was changed to have three House Officers, each serving

for 18 months. The first six months the man was Ophthalmic Externe, the second six months he was Junior Ophthalmic House Officer, and the last six months he was Senior House Officer.

These titles bring up a question. Did all three men live in the house or did the Infirmary follow the lead of the Massachusetts General Hospital, where the house men of the lowest rank lived outside the hospital and were designated Externes and those above them on the service lived in the house? It is surmised that this was the case, for space in the old Infirmary building was at a premium.

A note: At this time at the Boston City Hospital, the only other hospital in the city that had in-house training programs in ophthalmology and otology, the length of the term of service for each discipline was one year.

March 1899 saw the Infirmary in its new building at 243 Charles Street. 1900 saw the beginning of a new century and an Infirmary House Staff of four Ophthalmic House Officers and two Aural House Officers.

The number of men trained in the House of the Massachusetts Charitable Eye and Ear Infirmary under the various programs from 1830 to 1900 was 68. In the last three decades of the nineteenth century, when it was possible to differentiate between the two, 35 men were trained to be ophthalmologists and 12 to be otologists. National boards of certification were something in the future. The Surgeons gave to each appointee, upon the successful completion of his term of service, a handsome certificate complete with their signatures. So it was that the men became recognized specialists in ophthalmology and otology. To add to their training, a few of the men would later go to Europe — usually Vienna — to take in their specialty one or more of the six-week courses that were becoming popular.

In spite of all the great changes that had taken place in medicine and in ophthalmology and otology in the 70 years there had been training of men in the house, the Apothecary of 1830 and the House Officer of 1900 had at least one skill in common: When directed by the Surgeons, they performed the operation of the application of leeches. Leeches were in use in the Infirmary until the 1930s.

In conclusion, three entries from the Minutes Books:

> Minutes of the Board of Managers Meeting, February 2, 1897 — "It was voted to confer with the Staff in regard to discontinuing the pay of House Officers at the termination of the terms of the present officers."

House Officers — 1899–1900. Standing left to right: Edmund W. Clapp, John N. Coghlan, Elwood T. Easton. Seated: Harry H. Germaine

Surgical Staff Minutes, October 24, 1897 — "The full board is in favor of discontinuing the pay of House Officers after January 1, 1898."

Minutes of the Board of Managers Meeting, October 11, 1901 — "Dr. Walter Nevins Sharpe be not appointed to the position of House Officer at the Infirmary on the grounds that Dr. Sharpe is married and has children."

INFIRMARY HOUSE STAFF APPOINTMENTS

1830–1900

Apothecary

1830–36

Davenport, Edward Jones	Aug. 1, 1830–Aug. 1, 1834
Dix, John Homer	Nov. 3, 1834–Nov. 9, 1836

House Physician

1837–38

Dix, John Homer	Oct. 31, 1837–Oct. 30, 1838

Assistant Surgeon

1833–42

Ward, Henry Artemus	Oct. 31, 1833–Nov. 2, 1835
Cunningham, Edward Linzee	Nov. 3, 1834–Nov. 9, 1836.
Davenport, Edward Jones	Nov. 3, 1834–Nov. 9, 1836
Bethune, George Amory	Nov. 9, 1836–Nov. 2, 1842
Hooper, Robert William	Nov. 9, 1836–Nov. 2, 1842
Dix, John Homer	Oct. 30, 1838–Nov. 7, 1840

Assistant to the Surgeons

1850–73

Reynolds, John Phillips	May 31, 1850–Aug. 26, 1850
Owens, Thomas Robert	Aug. 26, 1850–Nov. 15, 1851
Sharp, John Cauldwell	Nov. 15, 1851–Nov. 2, 1858
Collidge, Algernon, Sr.	Nov. 2, 1858–Aug. 2, 1859
Hay, Gustavus	Aug. 2, 1859–Nov. 1, 1861
Shaw, Henry Lyman	Oct. 18, 1861–Feb. 2, 1864
Treadwell, Josiah Brackett	March 11, 1864–Aug. 5, 1864
Mackie, William Basilio	Nov. 1, 1864–(?)
Miller, Horace George	(?)–Oct. 21, 1865
Willard, Robert	Oct. 21, 1865–Feb. 18, 1868
Handy, George E.	Feb. 18, 1868–Feb. 9, 1870
Southard, W. F.	Nov. 1, 1870–May 9, 1871
Gilman, John B.	Nov. 1, 1870–May 9, 1871
Austin, William	May 9, 1871–Nov. 7, 1872
Brechin, William Pitt	Nov. 7, 1872–(?) 1873

(Position discontinued 1873.)

Ophthalmic and Aural Interne

1874–91

Dennett, William Sawyer	May 5, 1874–Aug. 1, 1876
Clarke, Jonas, Jr.	Aug. 4, 1874–Feb. 2, 1877
Bradford, Henry Withington	Dec. 23, 1876–Nov. 7, 1882
Smith, H. H.	Aug. 1, 1882–Died–Nov. 11, 1882
Standish, Myles	Feb. 6, 1883–May 7, 1884
Chandler, H. Beckles	Feb. 6, 1883–Jan. 1, 1885

Hall, William Dudley	May 7, 1884–April 1, 1886
Cheney, Frederick	May 4, 1886–April 1, 1888
Kilburn, Henry W.	Oct. 28, 1886–April 4, 1887
Jack, Edwin E.	May 3, 1887–April 1, 1889
Chamberlain, Allen H.	Feb. 7, 1888–April 1, 1890
Pinckhard, Charles P.	May 7, 1889–May 5, 1891
Proctor, Francis I.	May 6, 1890–May 5, 1891

(Position discontinued in 1891: Became Ophthalmic Interne and Aural Interne — two positions)

Ophthalmic Externe

1876–82

Barss, Richard	Aug. 1, 1876–(?) 1877
Harding, E.M.	June 15, 1877–Feb. 4, 1879
Galvin, George W.	Feb. 4, 1879–Nov. 7, 1882
Parks, Edward L.	Nov. 1, 1881–Nov. 6, 1883
Hubbard, Rufus P.	Nov. 7, 1882–(?)

(Position discontinued in 1883)

Aural Externe

1876–90

Bradford, Henry Withington	May 2, 1876–Dec. 23, 1876
Spear, Edmund Doe, Jr.	Nov. 5, 1878–Nov. 6, 1883
Jack, Frederick Lafayette	Nov. 6, 1883–Dec. 1, 1887
Morse, Henry Lee	May 5, 1884–Dec. 1, 1887
Plummer, Edward Maverick	Oct. 25, 1888–Oct. 30, 1890
Bryant, William Sohier	Oct. 25, 1888–Oct. 30, 1890

(Position discontinued in 1890: Became Aural Clinical Assistant)

Ophthalmic Interne

1891–93

Proctor, Francis I.	May 5, 1891–(?) 1892
Davis, Frederick A.	May 5, 1891–Feb. 7, 1893
Shephard, Thomas O.	March 11, 1892–Oct. 27, 1892
Quackenboss, Alexander	Feb. 7, 1893–Oct. 26, 1893
Haskell, Henry Hill	Feb. 7, 1893–Oct. 26, 1893

(Position discontinued in 1893: Became Ophthalmic House Officer)

Aural Interne

1891–93

Crockett, Eugene Anthony	May 5, 1891–May 2, 1893
Hammond, Philip	May 2, 1893–Nov. 28, 1893

(Position discontinued in 1893: Became Aural House Officer)

Ophthalmic House Officer

1893–1900

Haskell, Henry Hill	Oct. 26, 1893–Feb. 5, 1895
Morse, Almon Gardner	Nov. 28, 1893–(?) 1896
Carleton, Ralph C.	Feb. 5, 1895–(?) 1897
McCusker, John F.	Dec. 12, 1895–(?) 1897
Goray, John B.	Dec. 12, 1896–(?) 1898
Rust, Francis Lee Drummond	(?) 1897–(?) 1898
Mansur, Leon Wallace	(?) 1897–(?) 1898
Clap, Edmund W.	(?) 1898–(?) 1900
Germaine, Harry H.	Feb. 1, 1898–Aug. 1, 1899
Easton, Elwood T.	Feb. 7, 1899–Aug. 1, 1900
Spaulding, Fred Maurice	Sept. 1, 1899–Feb. 1, 1901

(Position had been Ophthalmic Interne)

Aural House Officer

1893–1900

Hammond, Philip	Nov. 28, 1893–March 13, 1896
Amberg, Emil	Feb. 4, 1896–(?) 1897
White, Leon Edward	Dec. 17, 1896–May 3, 1898
Amadon, Alfred Mason	Oct. 29, 1896–Feb. 1, 1898
Coghlan, John N.	Feb. 7, 1899–May 1, 1900

(Position had been Aural Interne)

★ 9 ★

Pathology at the Infirmary

1868–1900

The Board of Managers held their regular meeting on September 28, 1868, and a letter was read from B. Joy Jeffries, M.D., offering a cabinet for the preservation of the Infirmary's pathological specimens and drawings. Dr. Jeffries wrote that the morbid specimens that had been collected were too valuable to be lost. Unlike the morbid specimens of a general hospital, those of the Infirmary were small and the expense of preserving them would be slight. The cabinet he offered for their storage and display could stand in the large operating room. That year Jeffries and others on the Surgical Staff performed 281 operations, 16 of them were enucleations and 21 were for lid tumors. Specimens from these were the sort that Jeffries was interested in preserving.

The Managers accepted Jeffries's gift. In a later annual report, the Superintendent wrote: ". . . the house was enriched by a suitable cabinet for receiving the pathological specimens and the records of the Infirmary thus supplying a need long urgently felt as there was absolutely no place in the house suitable for containing the thirty or more volumes relating to the past years of the Infirmary."

From the above, it would seem that Dr. Jeffries's gift was just that — a cabinet especially designed to display and store gross pathological specimens in their standard jars with additional space for records and ledgers. Two months after acknowledging his gift, the Managers named Jeffries the Microscopist and Curator of the Pathological Cabinet of the Massachusetts Charitable Eye and Ear Infirmary. There was one other man in Boston who bore a similar ponderous title: Dr. Reginald Heber Fitz, who was the Microscopist and Curator of the Pathological Cabinet of the Massachusetts General Hospital. In later years, Jeffries would joke that he got the Infirmary appointment, not because of his skills or special interest in pathology, but because of his gift of the cabinet. Someone was needed to care for it and its contents, and he was the logical choice. No matter why or how he obtained his appointment, which he held for 13 years, B. Joy Jeffries, M.D., was the first pathologist at the Infirmary and his cabinet was the Infirmary's first "pathology laboratory." Jeffries did himself a disservice with his joke, for he

did have skills and special interest in pathology, especially the pathology of the skin and eye.

In the years before Jeffries's gift, Infirmary Surgeons Hooper and Bethune had reported in the literature cases of ocular tumors. In each instance, they had been satisfied with presenting a description of the tumor's gross morbid appearance, nothing more. Often the description was provided for them by John B. S. Jackson, M.D., Boston's foremost morbid anatomist. In those days, the value of the microscope in medicine was still a matter to be proved to U.S. doctors; they regarded the apparatus as something of a fad. J. Collins Warren, M.D., wrote of the Harvard Medical scene in the early 1860s that ". . . the course in pathological histology, which, although it consisted principally in picking apart with needles small fragments of tissue for microscopical examination, stimulated a taste for the work of a more advanced character which was to come later from European laboratories. The technique of section cutting and staining of tissue had not yet reached this country."

Warren, Jeffries, and others with an interest in pathology had to go to Europe for the necessary training. Many of them, like Warren and Jeffries, when they returned to the States, having no laboratories in their hospitals, would "fit out a table with a microscope and some chemicals in a corner of their own studies to avail themselves of every opportunity to continue their study on the pathology and classification of tumors." Those in Boston, when word of their interest and skills became known, had specimens sent to them from surgeons throughout the city. There is a record that Robert Willard, M.D., and Hasket Derby, M.D., both of the Infirmary Staff, sent tumor specimens to Warren for study and identification. In 1871, Derby and Warren co-authored a paper on melanosarcoma of the choroid.

Jeffries, who had acquired the necessary laboratory skills while a student in Vienna under Arlt and Hebra, took care of his own specimens. Among his earliest writings are those on the anatomy and histology of the ciliary muscle and on sarcomatous intra-ocular tumors. As for the Infirmary's Pathological Cabinet, he was more than just a watchdog. In 1876, when faced with a possible lawsuit, the Managers turned to him for information on the enucleations done at the Infirmary. Jeffries had the information at his fingertips. During his eight years as Curator, 249 enucleations had been done. His tabular report gave the results of both macroscopic and microscopic examinations. Although the Infirmary had no laboratory, perhaps not even a microscope, its Cabinet, in the custody of Jef-

fries, was in good order and was maintained at the least possible expense.

Jeffries resigned his post in 1881, and William Fisk Whitney, M.D., received the appointment. Whitney was making a name for himself as an able associate of Reginald Fitz, M.D., at the Massachusetts General Hospital. The demands the Infirmary made on Whitney were not great. A cursory study of the patient records for 1886 showed that in that year 3 intra-ocular tumors were given to him for examination. His reports were one brief sentence at the end of the records. Example: "Exam. of growth by Dr. Whitney proves it to be a large celled *sarcoma*." Greater burdens came to Whitney with the increase of mastoid cases after new quarters became available for the Aural Service. The inevitable autopsies were his to do. At times these were done on the premises. J. Orne Green, M.D., collaborated with him by examining the temporal bones. When ossiculectomies became a procedure of choice, Green did examinations of the bones that were removed. He was the best-qualified man in the city for the work. Although Whitney wrote nothing specific to the pathology of the eye or the ear, he did succeed in establishing something of a national reputation for himself as an ocular pathologist. Specimens were sent to him for study from as far away as Pittsburgh, Pennsylvania.

By the close of the 1870s ocular pathology and aural pathology had reached a high state of development as witnessed by the publication of Herman Knapp's *Treatise on Intraocular Tumors* and Green's translation of Schwartze's *The Pathological Anatomy of the Ear*. In 1885 the state of the art in the United States was advanced still further by the work of a young Ophthalmic Interne at the Infirmary, Myles Standish, M.D. Two years earlier, young Standish had noticed a brief reference in the *British Medical Journal* to the use of celloidin for embedding ocular specimens. He wrote to the author for further information. Upon receiving it, he went to Harvard's Histological Laboratory to work out the details of the method. He read of his efforts before the New England Ophthalmological Society and published a paper on them in the *American Journal of Ophthalmology*. This is the first paper in the U.S. literature on the use of celloidin for embedding ocular specimens.

More proof of the high state of the art: in 1887 another young Massachusetts physician, David Harrower of Worcester, returned from a study tour of three years in the ophthalmic centers of Vienna, Paris, Berlin, Edinburgh, and London. In his luggage he carried a set of microscopic slides of ocular conditions that had been prepared

especially for sale to students. Harrower's slides are now in the Archives of the Infirmary. Recently they were examined by a staff member who pronounced them to be superb, as good as any that would be made in the next forty years.

Aware of the state of the art and knowing the importance of routine pathological examination of their cases, the Surgeons became restless. When in such a state, they would often use the Infirmary Annual Reports to make their wants known. In 1887–88 they resorted to this device and wrote: ". . . it will ultimately be found possible to set aside and equip a room which will serve as a laboratory for microscopical and physiological work. This is now, in great measure, necessarily carried on outside the premises at a great cost of time and convenience." Although they had an ally in J. Collins Warren, M.D., who was now President of the Board of Managers, such space was not forthcoming until 1891, when separate quarters for the Aural Service were obtained. Then the first true pathology laboratory of the Massachusetts Charitable Eye and Ear Infirmary came into being, complete with a $100 microscope. Before long it was in active operation and was proving itself to be a valuable adjunct in exact diagnosis. The Surgeons looked forward to the possibilities for further development in certain directions, which would render it still more useful. The department's staff was enlarged by the appointment of Frederick Augustus Davis, M.D., former Ophthalmic Interne, as Whitney's assistant.

Whitney and Davis worked in the new laboratory until the early weeks of 1894. Then Whitney resigned from what must have been a part-time post at the Infirmary to accept a senior position in the pathology department of the Massachusetts General Hospital. When it came time to name his successor, the Managers chose the occasion to drop the cumbersome title of Microscopist and Curator of the Pathological Cabinet for the more modern title of Pathologist. The man selected for the post was William Dudley Hall, M.D., who had served as Interne in the Infirmary and currently held an appointment as Assistant Ophthalmic Surgeon. The appointment was a popular one with the Surgeons for they reported that they desired ". . . to note their appreciation of the continual advantages of the Pathological Laboratory, and to the persistent and valuable services of Dr. Hall in that department." To further the work of the department, the Managers voted $150 for a camera and other equipment for a photographic room. A sample of Hall's work as a

The "New" Infirmary — 1899.

photographer of microscopic sections may be found in a paper Wadsworth wrote in 1896.

When Hall was appointed, the post of Assistant Pathologist was abolished. It was renewed in 1896, when William Joseph Daly, M.D., was named Assistant Pathologist. He brought to the Infirmary skills he had used in the bacteriology laboratory of the Carney Hospital.

A great malaise settled over the Infirmary in 1895. It seemed that no one was happy. The Superintendent did not have room for the patients, the domestic staff, and the nursing school. The Surgeons found their clinics and operating rooms absolutely inadequate. And Dr. Hall, the Pathologist, had his tale of woe. He and his associate had done much zealous work in the laboratory, but they had been hampered by lack of space, imperfect arrangement, and a necessary waste of time and labor. As Hall saw it, the department should be a valuable part of the hospital; it should be used to educate the surgeon and to enable him to better work both in diagnosis and treatment. This was not being done. The Managers mulled and came to the conclusion that the only answer to everyone's unhappiness was to build a new hospital. Their architect in planning the

new building assigned to the Pathological Laboratory a large corner room on the fourth floor; in the basement space was assigned to the morgue. All this was ready for Hall and Davis in March 1899.

In contrast to 1895, in 1900 everyone at the Infirmary was happy, everyone that is, but Dr. Hall. Hall, who at this time held an appointment as Ophthalmic Surgeon as well as being Pathologist, knew discontent when he looked at the new building that everyone agreed was the finest eye and ear hospital in the world and wondered if there were not some way of increasing the scientific work being done there. He shared his troubled thoughts with his fellow Surgeons and they appointed a committee to examine the matter. Hall, of course, was chairman. One idea the committee considered was the publication of a journal, or a series of reports on the Infirmary and the conduct of the Pathological Laboratory. The Aural Surgeons did not think much of the idea, and it was quickly dropped. The program finally agreed upon by the Staff reflected the generous and unselfish nature of William Dudley Hall, M.D. The message he, as chairman, sent to the Board of Managers for action proposed his resignation and the appointment of an unknown man as full-time Pathologist.

From the Minutes of the Board of Managers meeting of July 11, 1900:

> *. . . the full board of Surgeons recommend to the Board of Managers —*
> *(1) The establishment of a salary of four hundred ($400) dollars per year, for the present, for the Pathologist of the Infirmary.*
> *(2) That the position be filled temporarily by arrangement with the Pathology Department of the Harvard Medical School till a suitable candidate be found.*
> *Voted — that the position of Pathologist of the Infirmary be established at the salary of four hundred ($400) dollars a year and board.*
> *Voted — that the question of furnishing lodging be referred to the Executive Committee.*

When the group met a month later, the resignation of William Dudley Hall, M.D., Pathologist, was accepted. Frederick H. Verhoeff, M.D., was appointed Pathologist. The appointment was regarded as an expression of the desire of the Surgeons and Managers to make the greatest possible scientific and educational use of the Infirmary, feeling that hand in hand with relieving the worthy poor went the opportunity of teaching other physicians and nurses.

Frederick Herman Verhoeff, M.D., (July 9, 1874 – October 22, 1968) was not a stranger to some of the Infirmary Surgeons. Those who had attended the 1899 meeting of the American Ophthalmological Society had heard this "wunderkind" from Johns Hopkins, as invited guest, lecture that prestigious group on the reflecting phorometer and torsion of the eye. One year out of medical school and he had published five papers on such subjects as astigmatic charts, trial prisms, perisitent hyaloid artery, mononuclear diplopia, and shadow images on the retina.

The Infirmary had requested William T. Councilman, M.D., Professor of Pathology at Harvard Medical School, to select a pathologist. Councilman turned to his mentor at Johns Hopkins Medical School, William H. Welch, M.D. Welch turned to Verhoeff with the offer of the Boston position. Verhoeff told Welch he knew nothing of the pathology of the eye and that he was just learning to make sections. Welch told him not to worry; no one knew anything of the subject and he could be a pioneer. Verhoeff accepted the post and reported for duty on September 1, 1900.

No secret was made of the fact that the Infirmary did not get a trained pathologist in Verhoeff. The title given to him — and he held it for two years — was that of Resident Pathologist. In a sense, he was on the same professional level as the Infirmary's Ophthalmic House Officers and Aural House Officers. His training in general pathology came during two years he was assistant in pathology under Dr. Councilman and Dr. Mallory at Harvard Medical School. He served there every morning for the first four months of the academic year. For this Harvard paid him $250 a year. For the work he did at the Infirmary, he received $400 a year and his room and board. General pathology he learned from Councilman and Mallory; ophthalmic and aural pathology he taught himself.

Two generations later Verhoeff was rated as the brightest, the most shining, and the least shy product of the Infirmary, the one who made the "greatest possible scientific and educational use of the Infirmary." The Managers of 1900 who hired him on his promise had chosen more wisely than dreamed possible. Verhoeff brought pathology to the Infirmary.

Details on Verhoeff's career may be found in:

Verhoeff, F.H. "Personal recollections of the early years of the ophthalmic laboratories of the Massachusetts Eye and Ear Infirmary." *American Journal of Ophthalmology* 39:38–42, April (pt. 2), 1955.

Cogan, D.C. "Frederick Herman Verhoeff, personal recollec-

tions." *Transactions American Ophthalmological Society* 67:96–109, 1969.

INFIRMARY PATHOLOGY APPOINTMENTS 1868–1900

Jeffries, Benjamin Joy
Microscopist and Curator of the Pathological Cabinet
November 3, 1868 — Resigned — November 1, 1881

Whitney, William Fiske
Microscopist and Curator of the Pathological Cabinet
November 1, 1881 — Resigned — February 6, 1894

Davis, Frederick Augustus
Assistant Microscopist and Curator of the Pathological Cabinet
February 7, 1893 — Post abolished — October 25, 1894

Hall, William Dudley
Pathologist
February 6, 1894 — Resigned — August 7, 1900

Daly, William Joseph
Assistant Pathologist
May 5, 1896 — Resigned — August 7, 1900

Verhoeff, Frederick Herman
Pathologist
August 7, 1900 — Resigned — June 1, 1932

(Note: The above dates were taken from the Minutes of the Meetings of the Infirmary's Board of Managers.)

★ 10 ★

A Tale of Four Hats

OR

Practitioners and Professors of Laryngology and Otology

Once when I attended the weekly Clinical Pathological Conference of the Oto-Laryngology Service of the Massachusetts Eye and Ear Infirmary, two cases were presented: one of massive trauma to the face and mouth of a young woman and the other that of a young man who had known several heroic surgical procedures in an attempt to arrest the cancer of his neck.

Just before the Conference, I had been doing some reading on the founding and early years of the Infirmary, 1824–38. This was the time when the Boston Eye Infirmary became the Massachusetts Charitable Eye and Ear Infirmary. The founders had, after some soul searching, decided to include the "Ear" with the "Eye," although they knew that the state of otology at the time would not allow them to do much in a positive way in treating diseases of the ear.

Remembering this, and with the demonstrations of the two cases before me, a question came to mind. How did such cases as these ever come to be treated in a hospital that began as a center of otology and ophthalmology? Or, to put the question another way: How did laryngology and otology become oto-laryngology at the Infirmary?

Seated next to me at the Conference was Dr. Harold F. Schuknecht. I noted that, as always, he was wearing his "four hats" — Infirmary Chief of Otology, Harvard Medical School Walter Augustus Lecompte Professor of Otology, Infirmary Chief of Laryngology, and Harvard Medical School Professor of Laryngology. Another question came to mind: How did those "four hats" wind up on one head?

My search for answers to the questions began with the documents in the Archives of the Massachusetts Charitable Eye and Ear Infirmary. I found that the word "throat" appeared for the first time in the Minutes of the February 6, 1883, meeting of the Board of Managers when they considered "A proposal to extend the usefulness of the Infirmary by receiving as day patients all persons suffering from diseases of the throat, which was referred to a Committee to consult with the Surgeons and report at the next meeting."

In the Minutes of the next meeting, March 21, 1883, "The Committee appointed last meeting to consider the proposal to receive as day patients all persons suffering from diseases of the throat, reported that the same was inexpedient, whereupon the Report was accepted and the Committee was discharged." This meant that the two Aural Surgeons, Clarence J. Blake and Henry L. Shaw, and the two Aural Internes, Frederick L. Jack and Henry L. Morse, would, as far as the Infirmary was concerned, confine their clinical activities to the traditional function of treating diseases of the ear. Policy making was the province of the Board of Managers, not that of the Surgical Staff, and determining the class of diseases to be treated was policy.

Some understanding of the Managers' action comes when it is pointed out that the Infirmary was a charity hospital with limited income from its endowments and from the state and that the sick-poor of the city with throat problems already had free clinics at the Boston City Hospital and at the Massachusetts General Hospital.

At the time of the Managers' action, there were five men in the Boston area who could be termed the pioneers, the first generation of Boston laryngologists: Ephriam Cutter, Frederick Irving Knight, Franklin Henry Hooper, Henry Kemble Oliver, and Samuel Wood Langmaid.

The senior man of the quintet was Ephriam Cutter, who was born in Woburn, Massachusetts, on September 1, 1832. The son of a prosperous doctor, he took an A.B. and an A.M. degree at Yale in 1852 and 1855. He then went on to receive his M.D. degree from Harvard in 1856. This was not enough for Cutter, for a year later, in 1857, he received a second M.D. degree from the University of Pennsylvania. While at Harvard he won the Boylston Medical Prize Essay contest. And while at Harvard, he had an experience that is best narrated in his own words: ". . . sitting at the feet of eloquent Professor of Anatomy and Physiology (Oliver Wendell Holmes), his glowing descriptions and ingenious and successful demonstrations filled me with a longing desire to behold the living larynx *in situ naturali*, and to study the mode of production of the voice and musical sounds." The Holmes lecture that inspired Cutter was delivered in 1856, one year after Garcia published his "Observations on the Human Voice." In his reading, Cutter had come across some allusions to a throat speculum, possibly Garcia's, but he could not get a model of the instrument or information on its construction. So he behaved like a true Yankee and "looked within and around himself for the apparatus."

By the end of 1858, he had completed his instrument and sent drawings of it to an optical instrument maker. His idea was derived from an Amici prism contained in his microscope. For a long time, he faced the question of whether the larynx could be illuminated and inspected by the same ray of light. His answer was to use an ophthalmoscopic reflecting mirror. He thought the temperature of the instrument should be raised to 98°F to avoid the deposition of moisture upon the prism, and he thought a tube was necessary to hold the prism. The instrument did not work to suit him, so he put it aside, only to have his interest aroused again when he read one of Czermak's publications and learned that his own instrument's principles and leading features were correct; all he needed was a little more manipulation to accomplish the desired result. At one point in Cutter's narrative appears this important sentence: "*I invented the name laryngoscope.*" He may have invented the name laryngoscope, but he did not use the word in print until 1863, five years after he devised his instrument.

We are fortunate that Cutter preserved his correspondence with his instrument maker. In 1883 Louis Elsberg reproduced it along with a drawing of the instrument in the *Archives of Laryngology* 4:122, 1883. With a great deal of manipulation, it is just possible, barely possible, that the larynx could have been seen with it. It lacked the simplicity of Garcia's 1854 instrument, and, of course, Cutter devised it in honest ignorance of Garcia's work three years too late. Nevertheless, Cutter does deserved some small measure of praise and recognition for this piece of pioneer work in laryngoscopy.

Cutter's 1863 publication on the use of the laryngoscope and the rhinoscope appeared in the December 17 issue of the *Boston Medical & Surgical Journal.* It is important because it is the first paper on the use of these instruments to be written by a Boston man: It is the beginning of Boston's modern laryngological literature, and a good beginning it is. It is the text of an address he had given at an earlier date before the Middlesex East District Medical Society. And until there is evidence to the contrary, this is the first presentation of these instruments, their manufacture and use to be made before a general medical audience in the Boston area. Thus it can be said that Boston laryngology began with this article. Cutter's message was that ". . . these means of exploration are wholly within the reach of every practitioner, and that no physician is excusable who neglects to practice the examination of the laryngeal and nasal cavities."

If, as stated above, the paper was Boston's first piece of modern laryngological literature, and the beginning of modern laryngology in Boston, then Ephriam Cutter was Boston's first modern laryngologist. He went on to make at least six more contributions to the literature of laryngology. One of his most interesting articles tells how in 1866 he "performed what was called thyrotomy modified — that is, by the disuse of tracheotomy or tube for the removal of a large sarcoma which nearly filled the calibre of the larynx. It was necessary to make new vocal and breath bands by the scissors." J. Solis-Cohen came from Philadelphia and Louis Elsberg came from New York to Woburn, Massachusetts, to witness the operation. Twenty-three years later, the patient was living and phonating well, able to sing a few notes in the middle register.

One of Cutter's early interests in laryngology was the photographing of the human larynx. Czermak, who had a similar interest, had photographed his own larynx but did not include the thyroid insertion. Cutter, in 1866, completed the work, getting the anterior insertions of the cords of his own larynx.

Cutter was a man of many interests, perhaps too many to be satisfied with the confines of laryngology. One biographer credits him with writing over 600 journal articles on medicine and collateral arts and sciences. Some of their subject areas were proper food, gynecology, drinking water, consumption, cancer, piles, Bright's disease, apoplexy, eye diseases, and blood tests for cattle. In addition to his laryngoscope, he invented a Eustachian tube catheter with three angles right and left, an invalid's chair, an ear speculum, three forms of clinical microscopes, metallic sutures, and a porcelain pessary that was of the "highest therapeutic value and netted the manufacturer large profits." Boston's first laryngologist died on April 1, 1917, when he was in his 85th year.

The second of Boston's pioneer laryngologists to be considered is Frederick Irving Knight. He was born in Newburyport, Massachusetts, on May 18, 1841. Like Cutter, he did his undergraduate work at Yale and took his M.D. degree at Harvard Medical School in 1866. Following a House Officership at Boston City Hospital, he went to New York to spend a year as an assistant to Austin Flint, M.D. He then returned to Boston to spend 12 years as an assistant to Henry I. Bowditch, M.D., then the leading specialist in New England on thoracic diseases. In 1871–72 he spent a year in Vienna, Berlin, and London. While on this study tour, Harvard named him Instructor in Percussion, Ausculation, and Laryngos-

copy. This was not Knight's first Harvard appointment. In 1869–71 he had been a Lecturer in Laryngoscopy.

On October 11, 1872, the Massachusetts General Hospital appointed Dr. Knight "to take charge of such out-patients as may require the use of the Laryngoscope." This was the first such special outpatient clinic in Boston. The conservative Surgical Staff of the Massachusetts General Hospital allowed Knight no more that the title of "Laryngoscopist." It took a year's time and the direct action of the Board of Trustees for him to be named "Physician to Out-Patients with Diseases of the Throat." Knight's Massachusetts General Hospital clinic was a success, if judged by the number of patients seen. Within two years of its inception, he was seeing an average of 1,000 patients a year. He manned the clinic alone, aided from time to time by a medical student, until 1880–81, when he was joined by Franklin H. Hooper and Samuel W. Langmaid.

Knight had interests other than laryngology. One biographer wrote of him: "Although one of the recognized leaders in laryngology, holding a professorship upon the subject in the Harvard Medical School, he was at the same time equally eminent and perhaps more widely known as a specialist upon the diseases of the lungs." His association with Bowditch and Flint and his natural ability placed him at the head of this department of medicine. When Bowditch retired, he became the leading specialist on diseases of the chest in Boston. Of the 80 papers that Knight wrote, more than half of them were on diseases of the lungs and the influence of climate on such diseases.

What sort of man was Frederick Irving Knight? D. Bryson Delavan, M.D., to whom we are indebted for so much of the history of laryngology, knew Knight well. It was his task to write Knight's obituary when he died on February 20, 1909. Here, in language that only he could write, is the last sentence of Delavan's obituary of Knight: "His life was like the story of a day in June, for its atmosphere was throughout genial, its hours perfection and not until its matchless sunset came the end, an end peaceful, beautiful, gentle, the exquisite finish of a perfectly rounded career."

Delavan's words, although flowery by today's standards, were based on his knowledge of an act of high-minded unselfishness that Knight had performed at the zenith of his career. The time was 1891. Knight was then the Chief of Laryngological Clinic at the Massachusetts General Hospital and Clinical Professor of Laryngology at Harvard Medical School — the two most important po-

sitions in Boston laryngology. His first assistant was the talented and energetic Franklin Henry Hooper. Hooper, in the gentlemanly Boston fashion, was understandably ambitious to advance, to some day rise to Knight's positions. He already held the position of Professor of Laryngology at Dartmouth, and he could wait. That is, he thought he could wait. This thought ended sometime in 1891, when Hooper, Boston's most promising young laryngologist, heard for himself the diagnosis of cancer of the tongue. Learning of his young associate's misfortune and knowing of his ambitions, Knight quietly resigned his appointments at the Massachusetts General Hospital and Harvard Medical School and used his influence to have the positions go to Hooper. Delavan writes that Knight knew that he, Knight, could never again take the positions, and that their relinquishment meant everything to him, and that his act was the final test of friendship. Tragically, Hooper died in 1892 after holding the posts for less than a year.

There is a touch of one of today's philosophies toward death and dying in the account of Hooper's last months, the time he knew that death was to be his. Everything had been done in the United States and abroad to save him. Butlin operated on him in London. His last trip abroad was to London again, only to learn there had been a recurrence. He returned to Boston, shut himself in his house and suffered uncomplainingly to the end. At one time the question of a tracheotomy was considered. Hooper knew this would only prolong his suffering and the suffering of his family and friends. He refused to have it done.

It is written that the disease to which Hooper succumbed had cast its shadow over his path in the early years of his professional life. From his youth, he had known considerable discomfort from small ulcerations on his tongue. By the time he was in medical school, several well-marked leucomatous plaques had made their appearance.

Hooper completed his medical training at Harvard in 1876. The scion of a "well-placed" Boston family, he had the means to spend four years of additional study at the medical centers of Europe. Sometime during this postgraduate period, he decided to devote himself exclusively to diseases of the nose and throat. While at Schroetter's clinic in Vienna, he made several valuable preparations of the cartilages, muscles, and ligaments of the larynx, which he used afterwards for his courses for students and graduates. When he returned to Boston in 1880, he was appointed at once to be Knight's assistant in the Massachusetts General Hospital Laryngo-

logical Clinic. He accepted a similar appointment at the Boston City Hospital. Three years later, in 1883, he began his most important experimental work at the Physiological Laboratory of Harvard Medical School. On the American scene, these were among the first experimental studies on the larynx to be undertaken. The titles of the papers he produced were "Experimental Researches on the Tension of the Vocal Bands," "The Respiratory Function of the Human Larynx," "Concerning the Position of Paralyzed Vocal Bands," "The Anatomy and Physiology of the Recurrent Laryngeal Nerves," and "Effects of Varying Rates of Stimulation on the Action of the Recurrent Laryngeal Nerves."

Although Hooper was of a modest and unassuming disposition, he did make one claim to priority. He maintained that he was the first to do an adenoidectomy in the New England States. The place was the Laryngological Clinic at the Massachusetts General Hospital and the date was June 11, 1885. He confessed that prior to that date he had been guilty of neglecting to examine by the digital method the nasopharyngeal cavities of small children. When he made it a practice to do so, he found 28 cases in 2,000 Boston clinic patients. By the standards of the time, Hooper was a conservative. The adenoid growths had to be large enough to destroy the functions of the nasopharyngeal cavity before he would operate. In four years he did 104 cases. In spite of his known attitude, he was nearly swamped with cases. Stories bordering on the marvelous are told of his full waiting room and of patients standing on the steps.

Hooper pioneered in the use of general anesthesia with ether for the procedure; and he designed a palate hook, a forceps, and a mouth gag. Acting on the suggestion of one of his young assistants, J. Payson Clark, M.D., the constant swabbing was eliminated by bringing the patient's head forward so that the blood from the vault of the pharynx could run out the nose, and the blood from the tonsils out of the mouth. This simple maneuver turned a long and bloody ordeal into a quiet and reasonably safe operation. In addition to his adenoidectomy instruments, he invented a number of other instruments that were in constant use in his day. Two of them were his laryngeal curette and his polyp and tonsil snare.

In his will, Hooper bequeathed to the Massachusetts General Hospital the "instruments and furnishings used by him in the Throat Department." His family gave money to furnish a room in his memory. That room became the Hooper Room — for six decades the library, museum, and staff meeting room of the Massachusetts General Hospital Laryngological Service and at a later date of the

Massachusetts Eye and Ear Infirmary Laryngological Service. At one time it contained a treasury of early laryngeal instruments, those of Hooper being joined with a collection assembled by Henry Kemble Oliver, M.D.

Henry Kemble Oliver, M.D., like the other Boston pioneers of modern laryngology, was New England born and bred. His first ancestor had arrived in Boston in 1632, and for generations his family had prospered in Salem. He graduated from Harvard College in 1852 and from Harvard Medical School in 1855. In keeping with the custom of well-to-do Boston medical graduates of the time, he went to Europe to complete his medical education. He was one of the first to "discover" Vienna as a medical education center. Prior to his time, Paris had been the city of choice for Americans. In the 1857 volume of the *Boston Medical & Surgical Journal*, there is a letter from Oliver to the editor telling of the medical education opportunities of Vienna. As Oliver describes the scene, Vienna at the time was certainly heaven on earth to the ambitious student who truly wanted to complete his medical education and prepare for a speciality practice. For our purposes, the article is incomplete because there is no mention of laryngology. Unfortunately it was written before the summer of 1857, when Professor Ludwig Trück first began to use small long-handled mirrors to examine the throats of patients. Yet Oliver, before he left Europe sometime after 1858, was certainly aware of Trück's work and that of Czermak, for he bought in Paris a set of steel mirrors. These were the first to be used in Boston for laryngoscopy. There is every reason to believe that the steel mirrors preserved in the Hooper collection are the ones Oliver brought home, and thus in Boston today there are specimens of the first laryngeal mirrors to enter this country.

Dr. Harris P. Mosher, who knew Oliver in his later years, tells us that Oliver was one of the first to substitute the glass mirror for the metal mirror, and that he made many of his instruments and silvered many of his mirrors. Mosher goes on to relate that Oliver had a very tolerant pharynx and his enthusiasm was such that all of his students in turn examined his larynx with a large lozenge-shaped mirror. That mirror too has been preserved.

Oliver's instruction of students and specialization in laryngology did not begin immediately upon his return to Boston. First, in 1860 he established himself in a general practice. A year later he left this practice to enter the Union Army as a medical inspector of the camps of McClellan's army. In 1866, as will be related later, he

gave lectures on the use of the laryngoscope before Harvard Medical School students: the first such formal lectures and demonstrations before medical students in Boston. At about the same time, he established a special practice in laryngology.

There is no record that Oliver served in any of the laryngological public clinics in Boston. His practice was entirely private. There is no record that he did any teaching other than the short stint he did for Harvard. In 1880 he gave up his practice to administer a fund that a wealthy Bostonian had established for the study of cancer. He made frequent trips to Europe to familiarize himself with the latest researches on the origin and treatment of cancer. In time this fund became the Harvard Cancer Commission, and Oliver was a member of the Commission.

In 1870 Oliver wrote a paper entitled "Cases of Aphonia from Paralysis of Intrinsic Muscles of the Larynx; Treatment by External Manipulation of the Organ and Restoration of the Voice at a Single Sitting." According to Morrell Mackenzie, this paper made Oliver the founder of "laryngeal gymnastics." Oliver died on October 25, 1919, the eve of his 90th birthday.

Oliver, Cutter, Knight, and Hooper all had special training in laryngology at the European centers. Not so with their Boston colleague Samuel Wood Langmaid, M.D. One biographer bluntly states that he had no instruction at all in laryngology. What he had was a magnificent tenor voice, and because of that voice and his association with singers, he followed with interest everything connected with the larynx and became one of the specialty's pioneers. His worth was recognized in 1891 when he was selected President of the American Laryngological Association.

He was born in Boston on June 26, 1837. As they used to say in that city, he was "fitted" for Harvard College by attending Roxbury Latin School. Harvard College in turn "fitted" him for Harvard Medical School, where he took his medical degree in 1864. Upon graduation he immediately volunteered for the Union Army as an Acting-Assistant Surgeon, serving until the end of the war. He then went on to Europe for a few months. When he returned to Boston, he established himself in general practice. He joined the surgical staffs of the Carney Hospital and the Childrens Hospital. In time, at the latter he established a department for diseases of the throat. In 1881 he was appointed Knight's assistant at the Laryngological Clinic at the Massachusetts General Hospital. The plan of operation at the time was for Knight to have charge of the clinic for six months each year and for Langmaid to have charge for six

months. When Knight resigned in 1892 to make room for Hooper, Langmaid also resigned.

By 1880 much of Langmaid's practice became limited to diseases of the upper respiratory tract. He became the Boston doctor most frequented by those of the musical and theatrical professions with voice problems. His special practice is reflected in his medical writings, three of whose titles are "The Treatment of Certain Forms of Vocal Disability by Application of Vocal Culture," "On the Singing Voice," and "A Common Form of Vocal Disability." Those who attended the 1907 meeting of the American Laryngological Association must certainly have enjoyed his presentation, "Massage of the Pharynx; Exhibition of an Instrument for that Purpose by a Famous Actor."

It should be noted that Langmaid, in common with many Boston laryngologists of the time, devoted a large part of his professional energies to the treatment of pulmonary tuberculosis. There were few weapons available to him and others against the Great White Plague. The most successful treatment they knew was to have the patients move to a high, dry climate — the "take a trip to Denver" prescription. Those who held to the philosophy of the importance of climate in the treatment of tuberculosis joined forces and founded the American Climatological and Clinical Association. Langmaid was Vice-President of the Association in 1901.

Samuel Wood Langmaid served medicine for almost half a century. He died in his Brookline home on February 3, 1915, in his 78th year.

The first Boston laryngologists were quite interested in education for the specialty. When Knight gave his presidential address before the American Laryngological Association meeting in Boston on June 22, 1832, his subject was the instruction of students in laryngology.

In those days there were two medical schools in Boston — Harvard Medical School and Boston University Medical School. But Boston University Medical School was tinged by homeopathic doctrine, so none of the "regulars" of Boston would have anything to do with the school. This meant that the pioneers, all of whom were "regulars," did their teaching at Harvard and its teaching hospitals — Massachusetts General Hospital, Boston City Hospital, and the Boston Dispensary.

As noted earlier, the first man in Boston to lecture on laryngoscopy before medical students was Henry Kemble Oliver. The date was 1866; for the occasion, Harvard made Oliver its University

Lecturer in Laryngoscopy. The course was under the Department of Clinical Medicine. What information we have on Oliver's lectures shows them to have been wholly didactic, no use of patient material. In 1870–71 he was joined by Knight, who was also named Lecturer in Laryngoscopy. A year later Harvard made Knight its Instructor in Ausculation, Percussion, and Laryngoscopy. For purposes of his lectures, Knight made use of his new clinic, small as it was, at the Massachusetts General Hospital for clinical demonstrations. Medical students were invited to join in the presentation of cases before the class. About this time Oliver resigned his appointment, leaving Knight the sole laryngologist on the Harvard Medical Faculty.

At first, Knight's duties were not heavy. His students were from the second-year class, which was divided into sections with each section having exercises daily for two weeks with no required examinations. At that time, there were about 50 men in each Harvard class. By 1874 Knight was giving a special graduate course with classes scheduled for 8 A.M. In 1879 ausculation and percussion were separated from laryngoscopy, and Knight's title became Instructor in Laryngoscopy. A year later, in 1880, Harvard established a voluntary fourth year, with one of the courses being laryngology. The course consisted of three exercises a week for two months. The instruction was both clinical and didactic and was followed by a written examination. The course must have known a degree of popularity, for in 1882 Harvard advanced Knight to the position of Assistant Professor of Laryngology. But he was still the only laryngologist on the Harvard Faculty. He labored alone for six more years until 1888, when Harvard named him its first Clinical Professor of Laryngology. At the same time, the department was given a second member, Franklin H. Hooper, M.D., as Clinical Instructor in Laryngology.

As narrated earlier, Knight resigned his appointment in 1892 and was succeeded by Hooper, who died before the year had ended. To meet this serious loss to instruction, Harvard hit upon one of its unique solutions. Laryngology was returned to the Department of Clinical Medicine. T. A. DeBlois, M.D., J. W. Farlow, M.D., and Algernon Coolidge, Jr., M.D., were appointed Clinical Instructors in Laryngology and the clinical instruction was divided between Boston City Hospital, the Boston Dispensary, and the Massachusetts General Hospital. In 1895 laryngology was made a compulsory subject and given in the first half of the fourth year. Lectures were given by the three instructors in rotation year by

year. This awkward system lasted until 1906, when Harvard gave laryngology a department of its own and named Algernon Coolidge, Jr., its Assistant Professor. With the Coolidge appointment, all clinical instruction was returned to the Massachusetts General Hospital.

It is interesting to speculate that Boston laryngology might have known a more vigorous growth had Harvard Medical School acted differently following the Knight/Hooper resignation-and-death, if the school had allowed laryngology to remain a separate department and not submerged it in a larger department, and if instruction had been vested in one man at one institution and not divided among three men at three institutions.

It is also interesting to speculate what course Boston laryngology might have taken had the Board of Managers of the Massachusetts Charitable Eye and Ear Infirmary voted differently in 1883, when the question of treating day patients with diseases of the throat came before them. Since the institution's founding, the otologists at the Infirmary had been treating certain forms of deafness by tonsillectomy and by catheterization of the Eustachian tube. Anatomically this placed them in the nasopharyngeal area. When the surgical treatment of nasal sinuses became the thing to do, they did it; and when adenoids became known and their removal became popular, the Infirmary surgeons got busy. The same was true with nasal polyps. Rhinology was being practiced. It was not many years before the Infirmary became in fact, but not in name, the Massachusetts Charitable Eye and Ear and Nose Infirmary. But no throat — the Managers would not allow that. All clinical patients with ailments of that area were referred to the clinics at the Massachusetts General Hospital or the Boston City Hospital.

At other centers in this country and in Europe, laryngology as a specialty was allowed to follow a natural course of uniting with its "brothers" otology and rhinology to become the trispeciality of otorhinolaryngology. But not at the Infirmary. This meant that for several years the Surgeons there remained primarily otologists. It meant that any house pupil received instruction only in otology and rhinology. If he wanted to learn laryngology, he had to take a supplementary term at the Massachusetts General Hospital or elsewhere. And this means also that this narrative of laryngology cannot deal with affairs at the Infirmary until the 1920s, when laryngology officially came to the Infirmary. Instead, for the first twenty years of this century, laryngology in Boston was primarily

Algernon Coolidge, Jr., and his associates and his clinic at the Massachusetts General Hospital.

With the exception of an occasional excursion into the nasopharyngeal cavity in search of adenoids and the like, the first laryngologists of Boston were primarily concerned with the larynx and adjacent tissues. Not so with the laryngologists under Coolidge. They took to heart Louis Elsberg's 1879 guidelines, which told them while the larynx was *par excellence*, they should also look to ". . . all diseases in which deglutition and respiration, separately or united, were affected, provided that such affections were above the stomach and lungs." Anatomically, this included all the structures that make up the anterior part of the neck plus the pharynx, the nasal fossae, the sphenoidal, ethmoidal, and maxillary sinuses, lachrymal duct, and the Eustachian tube. For good measure, he added the trachae and the bronchi and their ramifications to the air cells of the lungs.

In 1893 Algernon Coolidge, Jr., took over as Physician to the Massachusetts General Hospital Laryngological Out-Patient Department, and Harvard Medical School appointed him one of its three Clinical Instructors in Laryngology. At the beginning, he was assisted by J. Payson Clark, M.D., and Frederick Codman Cobb, M.D. At the turn of the century, he was joined by Joseph Lincoln Goodale, M.D., and a few years later by Harris Peyton Mosher, M.D. These were the men who would dominate Boston laryngology until the time of World War I.

Algernon Coolidge was Boston — genuine codfish aristocracy Boston. On his father's side, he was descended from one president of the United States and two Presidents of Harvard. His mother was a Lowell. Harris Peyton Mosher, one not given to idle words about people, wrote: "He was born, as it were, to the purple, and an air of distinction walked with him." Born to the purple and blue of blood, Algernon Coolidge entered the world of Boston on January 24, 1860. As a boy he lived in Berlin for two years. When he returned to Boston, he attended Noble's School for four years before going on to Harvard College. He was "welcomed to the company of learned men" by taking a B.A. degree there in 1881. He received his second Harvard degree from its Medical School in 1886. His introduction to laryngology came when he served as a House Officer in the Massachusetts General Hospital Throat Clinic. Education in the speciality was continued with two years of study in Vienna. The Massachusetts General Hospital welcomed him back

in 1889 to its Throat Clinic with an appointment as Assistant in Laryngology. Knight, Langmaid, and Hooper were his seniors; J. Payson Clark, and Frederick C. Cobb were his staff equals. In spite of his family's centuries old association with Harvard, that institution did not put him on its Faculty until 1893, when he was named a lowly Clinical Instructor in Laryngology.

It is recorded that Coolidge was one to talk, to do, but not to write. Had he been given to writing, he might have gained a small measure of fame for himself. In 1899 he had a patient a portion of whose tracheotomy tube had become detached and fallen into the trachea. Up until this date, blind groping had been the rule in attempting to retrieve foreign bodies from the trachea. Coolidge was the first in America to work by sight. By means of a head mirror, a long pair of forceps, and a female urethral speculum, he saw and removed the offending item. This happened a year or so before Killian published his first articles and became the accredited father of bronchoscopy.

If Coolidge failed to become the father of bronchoscopy of the world, he did succeed in becoming the father of bronchoscopy in Boston. Over the years at the Massachusetts General Hospital, he enlarged this service until he and his associates were proficient in all phases of head and neck endoscopy — laryngoscopy, tracheoscopy, bronchoscopy, esophagoscopy, and gastroscopy. Together they preached the gospel, practiced the art, and designed the instruments. And always they removed foreign bodies. Many of these have been saved. It is truly amazing to see the variety of objects that passed over the human lips and down the gullet — collar buttons, clock keys, gold crowns, fruit pits, cartridge cases, lead bullets, pins and buttons of all sizes and shapes, religious medallions, dice, nails, jewelry, teeth true and false, and on and on.

The most important product of Coolidge's work in endoscopy was the training and encouraging of one man, the man who in time would be his successor — Harris Peyton Mosher. Mosher referred to Coolidge as being his godfather in laryngology. With his characteristic generosity, Coolidge, when the time came, allowed his role in Boston endoscopy and laryngology to pass to Mosher with his encouragement and blessing.

Earlier remarks were made on Coolidge as a Boston aristocrat. That he was, but he was also a Boston gentleman doctor in the best tradition of that term. In his hospital work he was faithful to the point of personal extinction. He seemed to live for the welfare of the medical student. To the foolish he was kind, even though

it pained him to be. He was an unusually brilliant conversationalist and a sparkling lecturer. For his students, he wrote a textbook in 1915 on *Diseases of the Nose and Throat*. It was rather an elementary text, but one that served its purpose in its day.

Two photographs of Coolidge have been preserved. One shows him in his old age, seated at perhaps the Harvard-Yale game. White hair, parted beard, gates-ajar collar and cravat, gold watch chain, walking stick, and high button shoes. The second photograph shows him in hospital garb in his clinic in March 1907, surrounded by his residents, nurses, and staff: Clark, Cobb, Goodale, and Mosher. The clinic was starkly utilitarian, as another photograph shows.

Coolidge's first assistants at the Massachusetts General Hospital and at Harvard Medical School were Joseph Payson Clark and Frederic Codman Cobb. Both men were born in 1860, both men went to Harvard College, both men spent two years abroad giving special attention to laryngology, both took their M.D. degrees from Harvard Medical School in 1887, and both men took appointments in the Massachusetts General Hospital Throat Clinic in 1889.

The careers of the two men at the Massachusetts General Hospital and at Harvard Medical School ran parallel, when one moved up one step on the ladder, the other would move up a step. That is, until 1913. That year, at the age of 53, Frederic C. Cobb married. Soon thereafter he gave up his appointment at the General, curtailed his teaching activities, and closed his private practice. The reason, according to D. Bryson Delavan, was a good one: Frederic C. Cobb became a father. Delavan goes on to say that this son was a source of great comfort to Cobb. To enjoy the boy to the fullest, nothing would do but that he should retire with the boy and his mother to a quiet home in Gloucester, Massachusetts.

Like laryngologists everywhere, Coolidge, Clark, and Cobb were faced with the problem of cancer of the larynx. Time and again these men would refer to the subject in their writings. Their successes and failures, the successes and failures of their predecessors at the Massachusetts General Hospital were made known in 1907, when a young associate, D. Crosby Greene, M.D., published in the *Boston Medical & Surgical Journal* the article "Review of Cancer of the Larynx Treated in the Wards of the Massachustts General Hospital Since 1874."

From 1874 until the time of writing, there had been 24 patients treated in the wards for cancer of the larynx. There had been seven other cases, but these had been discharged untreated, or the di-

agnosis had not been definitely established. In 12 of the 24 cases, the diagnosis had not been confirmed by microscope. These had all been advanced cases and the diagnosis had been made by laryngoscopic examination alone. To have removed even a small section might have led to a rapid increase in the cancer.

The youngest case was 27, the oldest 73. Twenty of the cases were males and four were females. Two of the 24 were not operated on; one died of asphyxia while in the hospital and the other three months after leaving. In 12 of the cases, the disease was so extensive that tracheotomy for the relief of dyspnea was the only treatment given. All but one of these patients survived the operation for several months. The one exception died in nine days. The longest case to survive lived 36 months.

Of the operations for cure, epiglottidectomy by subhyoid pharyngotomy was performed for cancer of the epiglottis twice. Both patients died, one in two days and the other in four. Cause of death: pneumonia.

Laryngotomy with removal of soft tissues from the interior of the larynx was performed three times. One patient died from undetermined causes in eight hours. The other two cases of laryngotomy recovered from the operation. In one there was no recurrence at the end of four years, and in the other there was a recurrence in two months, in consequence of which a total laryngectomy was done. In four cases in which total laryngectomy was done, death from the operation resulted twice; one case of aspiration pneumonia and one case from shock. Of the two who survived the operation, one died of recurrence in five months and one had a recurrence in four months, from which Greene expected him to die. One case of adenocarcinoma involving the larynx was operated on by excising the tumor without removal of the larynx.

The results of the Massachusetts General Hospital group in ten operated cases for cure of cancer of the larynx: There was a mortality of five or 50 percent, recurrence in four or 30 percent, no recurrence in two or 20 percent.

Greene made the point that in the great majority of the cases the disease was in an advanced stage. In only four of the 24 cases was the growth confined to a small area of the laryngeal cavity. To him this was especially unfortunate, when he considered the peculiarly favorable conditions for extirpating cancer situated in the laryngeal cavity. He made a strong plea for laryngoscopic examination of every case of hoarseness in an adult over 40 years of age that had persisted without improvement for two to three months.

Another of Coolidge's young associates was Robert Lincoln Goodale, M.D. He was born January 22, 1868, knew Harvard from birth for his father, George Lincoln Goodale, was Fisher Professor of Natural History at Harvard University and Director of the Botanical Garden. It is no surprise to read that Joseph Lincoln Goodale graduated from Harvard in 1889, A.B., A.M., Phi Beta Kappa, and that in 1893 he took his M.D. degree from Harvard Medical School. In keeping with the tradition of the time in Boston, he went on to be a House Officer, West Medical Service of the Massachusetts General Hospital. Then for two years he studied in Vienna, Berlin, and Heidelberg. When he returned to Boston in 1895, he took an appointment as Assistant Physician in the Massachusetts General Hospital Throat Service under Coolidge.

He is credited with engaging in studies in bacteriology and being interested in the first production on a mass scale of diphtheria antitoxin. What is often overlooked is a paper of Goodale's that appeared in the 1896 volume of the *Boston Medical & Surgical Journal* entitled "An Experimental Study of the Respiratory Function of the Nose." Sixty years later, in 1956, Sven Ingelstadt of Lund, Sweden, reviewed Joseph Goodale's youthful work and credited him with having made the following original observations: "As to the temperature and humidity of the expired air during nasal breathing, it has long been known (Goodale, 1896) that the expiratory air leaves the body at a temperature of several degrees below 37° C. . . . In man the nose is part of the normal respiratory route. It warms and moistens the air inspired and is thereby supposed to protect the tracheo-bronchial tree and the delicate alveolar epithelium. But, in addition, the mucous membrane of the nasal cavities recovers part of the heat and moisture from the air expired."

Joseph L. Goodale was in his 88th year when these words were printed. He was pleased to read them.

At the Massachusetts General Hospital, Goodale rose through the ranks to become Laryngologist, the post immediately beneath that of Chief-of-Service. According to Frederic Washburn, M.D., historian of the General, in 1912 Goodale made the first study of hay fever in the Hospital. Washburn states that Goodale was the first to make a skin test with substances other than pollen. In 1914 he described the immediate reaction that occurs in a patient with horse asthma when a drop of diphtheria antitoxin is applied to a cut in the skin. Goodale established a clinic for hay fever patients in the Throat Department and made important contributions to the knowledge of the subject and its literature. In 1919 it became

clear to the Staff of the General that asthma and hay fever, not being local diseases of the throat, more logically and practically belonged in the Medical Department. A special allergy clinic was established, and Goodale retired in favor of Francis M. Rackemann, M.D. Joseph Lincoln Goodale died on November 5, 1957.

At this point something of an assessment will be made of the Boston laryngologists prior to World War I. Ten of these men have been treated in detail in this study: Cutter, Knight, Hooper, Oliver, Langmaid, Coolidge, Cobb, Clark, Goodale, and Mosher. The last has only been mentioned, but will be treated in detail later.

These men had many things in common. All but two of them were born in the Boston area. All but one of them went to public or private schools in Boston. Eight of them went to Harvard College, two to Yale. All of them had interneships in one or the other of Boston's hospitals. Only one did not have at one time or the other a teaching appointment at Harvard Medical School. And only one did not go abroad for special study.

This last fact is important for two reasons. First, they were conversant in at least two foreign languages. So there was little in the literature of laryngology they could not read. Second, it can be said that all Boston laryngologists of the time were men of means or came from families who had means. As young men they could go to Europe for special study for periods as long as four years. They did not have to rely solely on their private practices for income. They could afford to spend hours in public clinics and wards; they could devote time to teaching and writing, and time and money to investigations. Trips to national meetings, to international meetings, to Europe for "refresher" courses, all of these posed no financial problems. It could be said they were an elite local corps, but this would not be true. They were living the Boston pattern, the same pattern that was followed by men of means in other branches of Boston medicine, in the law, and in banking. For things to have been otherwise would not have been proper. In spite of this ingrown provincialism, much that was good, much that was innovative, came out of Boston medicine and the Boston way of life.

One final point, all ten men were of old Yankee stock. Unlike New York, Philadelphia, Chicago, or Baltimore, no European born and bred and educated in medicine arrived to dominate the scene in any area of Boston medicine. Lacking this leaven that so enriched medicine elsewhere in the States, Boston medicine made it on its own using its native-born manpower to excellent purpose.

With the close of World War I this pattern of Boston medicine changed and changed rapidly.

So it was that laryngology developed as a speciality in the Boston area with no help from the Massachusetts Eye and Ear Infirmary. To return to the "four hats": first, the "two hats" of laryngology — in 1911 when the Massachusetts General Hospital reorganized its Surgical Staff, Algernon Coolidge, Jr., was named Chief of the Laryngology Department. At the same time Harvard Medical School appointed him Professor of Laryngology. So two of the "four hats" went to Coolidge and the Massachusetts General Hospital.

Now for the "two hats" of otology and the Massachusetts Eye and Ear Infirmary:

Clarence John Blake joined the Infirmary Staff in 1870, when he and Robert Willard were named the first Aural Surgeons. Neither he nor Willard was ever a Chief-of-Service in the modern sense of the term. They were equals, sharing responsibilities. Blake, assisted by internes, would be in sole charge of the clinic and house patients for six months; then Willard would be in sole charge for six months. A similar program with six Surgeons was in operation in the Ophthalmic Department. This was how the Infirmary's clinical activities were managed until well into the twentieth century. No full-time Chiefs-of-Service for either ophthalmology or otology, rather a rotation of Surgical Chiefs, all equal, each responsible for all activities within his calendar period. However in Blake's case, it can be said that by reason of his seniority, his personality, and his accomplishments that in time he came as close to being a Chief-of-Service as the Infirmary system would permit. Blake served the Infirmary as Aural Surgeon for 35 years. In 1905, at the age of 62, he retired and was named Consulting Surgeon.

A look at the Infirmary Aural Staff in 1905–6, the time of Blake's retirement, is of interest. There were four Surgeons: Frederick Lafayette Jack, Edward Maverick Plummer, Eugene Anthony Crockett, and Philip Hammond. Among the Assistant Aural Surgeons were Walter Augustus Lecompte and David Harold Walker. And one of the six Aural Clinical Assistants was Harris Peyton Mosher.

Walter Augustus Lecompte calls for special consideration. He was born in Syracuse, New York, in 1870. He graduated from Harvard Medical School in 1897, and then studied in Europe, spending some time with Politzer in Vienna. He began his career at the Infirmary in 1900 as a House Officer. His career and life ended on January 3, 1907, when he died of appendicitis. His in-

struments were willed to the Infirmary. In his memory, his uncle, Francis D. Lecompte, made a gift of $50,000 to the Medical School of Harvard College ". . . to endow the Professorship of Otology in the Medical School of Harvard College . . . the Professorship to bear the name of Walter Augustus Lecompte; this sum to be kept in a separate fund under the name given, and any surplus of income not needed to pay the salary of the incumbent to be devoted to defraying the expenses of the Department of Otology in the Medical School of Harvard College." This was the beginning of Harvard's Walter Augustus Lecompte Professorship of Otology. Incidentally, should anyone today wish to endow a name chair at Harvard Medical School, he would have to begin to think in terms of $1,000,000.

One more note on the uncle, Francis D. Lecompte. At the time he made his gift to Harvard in his nephew's name, he made a gift of $25,000 to the Infirmary in the name of his niece. He asked that the fund, to be used for general purposes, be named the "Adelaide Lecompte Spalding Fund" and that a plaque reading "In Memory of Adelaide Lecompte Spalding" be placed on a wall of one of the women's wards. It is assumed that Walter and Adelaide were brother and sister.

Clarence Blake began his teaching career at Harvard Medical School in the same year he began his clinical career at the Infirmary, 1870. For five years he held the title of Lecturer in Otology, then that of Clinical Instructor in Otology, and in 1888 he was made Professor of Otology. In 1907, when the Lecompte Professorship was established, he as the incumbent professor was named to the post. There is nothing in the record to indicate that importance or unimportance was attached to the fact that Blake had not been on the active Staff of the Infirmary for two years. His duties as Professor required him to provide each year at the Medical School a series of didactic lectures on the ear and its diseases. Clinical instruction and demonstrations were given at the Infirmary by the Aural Staff members, who could hold such academic titles as Assistant Professor, Instructor, and Assistant. A similar program in laryngology was in effect at the Medical School and the Massachusetts General Hospital.

When the medical students came to the Infirmary, they could see, as might be expected, the full spectrum of diseases of the ear and the mastoid process, and witness their surgical and medical treatment. Recalling the 1883 decision of the Board of Managers

to restrict clinical activities to diseases of the ear, it is something of a surprise to learn that by 1905–6, the student would see members of the Staff treating diseases of the nose, nasopharynx, tonsils, and accessory sinuses. Somehow, over the years, the Infirmary had become a center for ophthalmology, otology, and rhinology — an eye, ear, and nose hospital. In one year, 629 tonsillectomies and adenoidectomies were performed, along with 77 other rhinologic procedures. In the same year, over 1,400 ear operations were performed. One looks in vain through the list of operations for anything relating to the larynx. All such cases presenting themselves at the Infirmary were routinely referred to Algernon Coolidge's Massachusetts General Hospital Laryngological Service. This posed little hardship for the patients, for by this time the two hospitals occupied adjacent pieces of land in the Charles Street–Fruit Street area. Aural Internes of the Infirmary supplemented their training by taking a six-month appointment in the Massachusetts General Hospital Laryngological Service. Otology and rhinology was at the Infirmary; laryngology at the General.

Three of the four Surgeons on the 1905–6 Aural Staff, Jack, Hammond, and Crockett, were otologists trained in a large part by Clarence J. Blake and J. Orne Green. The fourth Surgeon, Edward Maverick Plummer, lived up to his middle name by being something of a maverick. His colleagues were Harvard men, he was a Dartmouth man. They were Boston, he was back-country Maine. Their offices were in the Back Bay, his was in Charlestown. They confined themselves almost entirely to diseases of the ear, he, by virtue of his clinical activities, was more of an otolaryngologist by today's definition of the term. He did not hesitate to avail himself of experiences in Coolidge's clinic. On one of his visits there, he spoke to a young assistant of Coolidge. That conversation, so important to the future of the Infirmary, was recalled years later in these words: "Naturally I had kindly feelings for him because he gave me my start at the Infirmary. I had been out of the M.G.H. but a few years and still had hopes of doing major surgery, especially the major surgery of the nose, throat, and ear. Dr. Plummer picked me out of the Out-Patient where I was an Assistant Surgeon and gave me a free hand in the Infirmary on his service. I hope I did not abuse his confidence and generosity." The young assistant's name was Harris Peyton Mosher.

There is nothing in the record to indicate that all was not well between the Infirmary and Harvard Medical School or that all was

not well within the Infirmary itself until attention is drawn to the Minutes of the March 22, 1912, meeting of the Board of Managers. Here an entry reads: "A letter from Dr. Clarence John Blake to the President was read regarding a professor of Otology at the Harvard Medical School, and the possibility of a clinical appointment for such a professor at the Infirmary." This entry is followed by: ". . . the full Board of Surgeons be requested to report . . . as soon as possible . . . regarding the reorganization of both the Aural and Ophthalmic Staffs." The Board President, Dr. George B. Shattuck, was made a committee of one to confer with President A. Lawrence Lowell of Harvard regarding the matter.

The Surgeons seemed to have dragged their feet a bit on a Staff reorganization plan, so after some months the President appointed a committee from the Board of Managers to consider the matter. This lay committee consulted with all members of the Staff, as well as with such outsiders as Harvey Cushing and H. A. Christian. They reported back in six weeks. In brief, they damned the current system. They found on both the eye service and the ear service that most of the Surgeons felt little responsibility for their services, only a few made a practice of overseeing everything, some instructed their assistants and some did not, and that there was an overall lack of cooperation and esprit de corps. There was no real head to the institution. The hospital superintendent had full charge of the house, but he had no power over the Staff or their activities.

One obvious solution was to have a paid Chief Surgeon with full powers in each department. This the committee rejected because the Infirmary lacked the means. A salary of $5,000 a year for each man was too much. At this point the report spoke of the relationship between Harvard Medical School and the Infirmary. Because of its importance it is reproduced here without editing.

> *It is probably true that if we should appoint a chief surgeon in the eye department, or in the ear department, a professor of Ophthalmology or Otology, as the case might be, we should have the financial assistance to the extent of a salary of the professor amounting to perhaps $2,500 for the eye professor (the H. W. Williams Professorship) and $2,000 for the ear professor (the W. A. Lecompte Professorship). We doubt, however, whether a public hospital should make any definite permanent arrangements with a medical school, as our first and most essential need at this time is an executive head, who might or might not be a good teacher of medical students. The hospital had probably better preserve its independence.*

The reorganization plans that were approved by the Managers provided for there to be two unpaid Chief Ophthalmic Surgeons and two unpaid Chief Aural Surgeons. The two Chief Aural Surgeons would have jointly full charge and responsibility for their department. All appointments to the Surgical Staffs, other than the Chiefs, would be made as in the past from nominations presented by the Staffs. The Aural Chiefs-of-Service selected were Frederick L. Jack and Eugene A. Crockett, both former students of Blake. Among the Aural Surgeons appointed were Philip Hammond, D. Harold Walker, and Harris P. Mosher. Hammond and Walker were primarily interested in otology. Mosher, although holding the title of Aural Surgeon, was primarily interested in laryngology. At this time Mosher also held the title of Laryngologist at the Massachusetts General Hospital and served in that hospital's Out-Patient Laryngological Service. A look at the men holding junior positions on the Infirmary's Aural Staff, Assistant Aural Surgeons and Aural Clinical Assistants, shows that about half of them were primarily interested in laryngology.

The plans for the reorganization of the Infirmary Staffs were in operation by the end of 1913. Coincidentally, at this time Clarence Blake resigned from the Walter Augustus Lecompte Professorship of Otology. Harvard appointed no one to the post. Its medical education in otology became the responsibility of Eugene Crockett, whose title was Assistant Professor of Otology.

The status of the "four hats" at the close of 1913 was as follows: the two hats of laryngology — Harvard Medical School Professorship of Laryngology and Chief of Laryngological Service — were both at Massachusetts General Hospital, firmly on the head of Algernon Coolidge; the two aural hats — one the Harvard Medical School Walter Augustus Lecompte Professorship — was in a box at Harvard, while the other — Aural Chief-of-Service — was jointly worn by Jack and Crockett at the Infirmary.

An understanding as to why the Board of Managers did not take bolder action in their reorganization comes with a knowledge of what the Infirmary was in 1912–13. As its name, Massachusetts Charitable Eye and Ear Infirmary, indicates, it was a public charity hospital. In that year, about 30,000 new patients were seen in its Out-Patient Clinics — 20,000 eye cases and 10,000 ear cases. A fee of 25 cents or nothing was charged for each visit. Seventy-five percent of the 210 beds were occupied by free patients. The other patients paid from one to ten dollars a week according to their means. Private paying patients as we know them today would not

be admitted into the Infirmary until 1916. The cost of food for each patient, before cooking and serving, was 21 cents a day. To meet the yearly budget of $115,698.10, the Infirmary used the income from its endowments, gifts, patient fees, and an allotment of $40,000 from the Commonwealth. Medical and surgical services to the patients, clinic and house, were rendered free of charge by the Surgical Staff. No one on the Staffs, from the Chiefs down to the lowest Assistant, received one cent of compensation. Without this voluntary service, the Infirmary could not have functioned. The Board of Managers knew this and were diplomatic rather than aggressive in their dealings with the Staff. On those rare occasions when the Staff felt its dignity was threatened, a firm reminder would be given.

The 1912–13 decisions of the Board of Managers ran counter to trends in medicine of the time. Reading between the lines, the impression is gained that the Managers knew this. It had been demonstrated that many hospitals and clinics knew their greatest potential with one full-time Chief, with one man responsible for supervising all patient care, teaching, and research. The Managers' report had told them of the weakness of the practice of rotating chiefs. They compromised by substituting six Ophthalmic Surgeons and four Aural Surgeons for two Ophthalmic Chiefs-of-Service and two Aural Chiefs-of-Service. We do not know what pressure came from the Surgical Staffs when the decisions were made. We do not know what pressure came from Harvard Medical School to establish full-time Professor/Chief-of-Service with salaries paid in part by Harvard and part by the Infirmary. What we do know is that the idea of one Chief was not popular with the Surgeons and that independence was dear to the Infirmary.

There was one problem that was beyond the capacity of the Board of Managers to solve: the problem of the state of otology and laryngology in Boston. In their early years, these two surgical specialities had known separate growths. But by 1912–13, because of the forces of economics and medical common sense, they were becoming the speciality of otolaryngology. Otology journals and laryngology journals were changing to journals of otolaryngology; otology societies and laryngology societies were becoming otolaryngology societies; otology clinics and laryngology clinics were merging to become otolaryngology clinics; and otologists and laryngologists were starting to call themselves otolaryngologists. But not in Boston. There the trend moved at a snail's pace because of the Laryngological Service at the Massachusetts General Hospital

under the strong leadership of Algernon Coolidge and because of the Aural Service at the Infirmary dominated by Blake's disciples, Jack, Crockett, Hammond, and Walker. It should have been obvious to all that real progress in otolaryngology in Boston would be made only when these two institutions somehow joined forces. This would come about because there was one man with a foot in both camps — Harris Peyton Mosher. On January 1, 1915, he was joined by another — Frederic Augustus Washburn, M.D. Since 1908 Dr. Washburn had served as Director of the Massachusetts General Hospital. In 1915 he became Director of the Infirmary as well. With the power of these two directorships, he worked to unite the outpatient services of the two hospitals. His first move was to have appointed members of the Staff of Childrens Medical Department of the Massachusetts General Hospital as a Staff for the Infirmary for the care of children.

Plans to unite the outpatient clinic services of the two hospitals would have moved faster, if it had not been for two things: the outbreak of World War I and the enacting of Massachusetts Anti-Aid Amendment. Mosher and Washburn, as old army doctors, were early in the ranks. Before hostilities were over, 40 percent of the Infirmary's Staff had joined them. It was well into 1919 before they were able to resume their Infirmary duties. When they did return, they found that the Anti-Aid Amendment had dealt a grave blow to charity institutions, such as the Infirmary. Since 1837 the Infirmary had received a yearly grant from the Commonwealth. By 1918, the last year such grants were constitutional, the amount was $45,000. It had been hoped that income from the private floor, first opened in 1916, would make up for this loss. This proved to be a false hope. The most rigid economy was introduced, charges were increased, the amount of the charity given was lessened. Yet the year of 1919 closed with a deficit of $10,566.04. The cost of a patient's food, before cooking and serving, rose to 52 cents a day.

In 1918 Edward Hickling Bradford, M.D., Dean of Harvard Medical School, was elected President of the Infirmary's Board of Managers. He was the eighth doctor to be elected to the post. From 1853 until his time, every President had been a doctor. Two, like Bradford, had been Deans of the School; all had served on its teaching staff; and all but one had been on the Surgical Staff of the Massachusetts General Hospital. Why the Board of Managers, composed of the usual assortment of Boston bankers, lawyers, and stock brokers, made it a practice to go outside their professional circle to select their President is a question that cannot be answered.

Certainly their action served to put the Infirmary into the Harvard–Massachusetts General Hospital orbit and keep it there during a formative period.

For some years Harvard had allowed its name professorships in otology and ophthalmology to be dormant. At the close of 1918, perhaps through the efforts of Bradford, they were activated with Eugene Crockett, one of the Infirmary's Chiefs of Aural Service, being named to the Walter Augustus Lecompte Professorship of Otology, and with Alexander Quackenboss, one of the Ophthalmic Chiefs-of-Service, being named to the Henry Willard Williams Professorship of Ophthalmology. With this done, President Bradford directed Professor Crockett, Professor Quackenboss, and Director Washburn to draft a plan for the reorganization of the Staff. Seven years had passed since the last such effort.

In their report, the three men agreed that the trend of the times in hospitals was toward full-time, paid chiefs with continuous service, and that often these chiefs were selected with a medical school in order that the men could head corresponding teaching departments in the school. They recognized that such men to head the two Infirmary departments would have to be paragons indeed. They did not think the Infirmary was ready to take the full step, so they recommended a half step. Each service, Aural and Ophthalmic, was to have two services. One service was to have a paid head; the other a volunteer head as then present. Each of the paid chiefs would receive $10,000 a year, half from the Infirmary and half from the Medical School. In addition, they would have offices in the Infirmary with permission to see private patients for consultation and operating only. They could keep their fees, but they would have to furnish the Superintendent with an annual confidential statement. Should the plan prove to be desirable, the volunteer service could be phased out. Nominations to the posts would be made by a joint committee from the Infirmary and the Medical School. Bradford was pleased and was certain funds could be raised to underwrite the scheme.

Nowhere in the report did the word "laryngology" appear.

Bradford was wrong. Funds were not made quickly available. The plan had to be put aside. In less than six months, he and the Board of Managers were faced with the task of appointing a new Joint Chief of the Aural Service to replace Frederick L. Jack, who had turned in his resignation. Crockett, who had remained on as Joint Aural Chief, suggested that the name of the new Joint Chief might come from a confidential circular letter that would be sent

to each member of the Aural Staff, requesting an opinion as to who should be appointed. Bradford agreed. The recommendation that came from the Aural Staff shattered his earlier plan. What the Staff wanted was an Aural Service divided into two services: an Aural Service and a Laryngological Service. The Aural Service would be headed by two Chiefs-of-Service, each serving six months; the Laryngological Service would have one Chief, serving throughout the year. Philip Hammond would take the place on the Aural Service vacated by Jack. Harris P. Mosher would take the place of Chief of Laryngology Service *if and when* the Massachusetts General Hospital appointed him Chief of its Laryngological Service. Paid, full-time Chiefs were not wanted.

In the explanation of the recommendation, it was stated that there was a desire to have closer connections with the work at the Massachusetts General Hospital and the Infirmary; a desire to utilize the Massachusetts General Hospital Laryngological Out-Patient Department and operating room in connection with available beds in the Infirmary. This would be advantageous to both hospitals and do away with a certain amount of duplication in charitable work.

When the Board of Managers issued its next Annual Report, among the officers listed for 1920–21 were the three Aural Chiefs-of-Service: Eugene A. Crockett, Philip Hammond, and Harris P. Mosher. After Mosher's name appeared the word "Laryngologist." This was the first time this word appeared in an Infirmary Annual Report. For some reason, Mosher was also listed with the Aural Surgeons, as was D. Harold Walker.

The man Mosher is worthy of a study of his own. From the time he joined the Staff of the Infirmary in 1905 until he retired in 1939, he was the hospital's single most important figure in otology and laryngology. Powerful and power-hungry, he dominated the scene, molding otolaryngology at the Infirmary and on the national scene to what he thought it should be. From comments made of him some years after his death these remarks are selected: "Good teacher — learned his otology late in life — people did not like him — did good work in his laboratory — arrogant, sure of himself, sarcastic — criticized others in an insulting manner — collected matchbox covers — loved to insult people — joined every society he could — travelled to all the meetings — wanted to be President of the AMA — a selfish man — he was all the way for you or all the way against you — poor manners with patients, rough — liked the underdog — envious, autocratic, jealous — wanted to be the

head of everything — more meanness than anyone else — he knew laryngology — forceful character — got what he wanted — keen mind — sincere in his enthusiasm for the welfare of laryngology — good administrator — men either worked *with* him or *for* him — he didn't leave *his* clinic until it was over — private patients meant nothing to him." Reading through this list, the cynic could say that Mosher had many of the qualities essential to being an innovative Chief-of-Service.

Mosher was from the State of Maine, being born in the town of Woodsford on October 21, 1867. His father was a civil engineer and an inventor. His mother was a musically and artistically talented person. It was a point of pride with Mosher that his great-great-grandmother was a sister of Paul Revere. He completed high school in Deering, Maine; then the family moved to Boston, so he could take advantage of Boston Latin School. Before entering college, he spent a year at the Massachusetts Normal Arts School. That year at the Arts School prepared him for a lifetime hobby in all media — sketching, painting, small sculpture, watercolors, and the like. He took his undergraduate degree from Harvard College in 1892 and his medical degree from Harvard Medical School in 1896. He served as Surgical House Officer at the Massachusetts General Hospital and at the Boston Lying-In Hospital. His experience at the latter hospital caused him to consider for a time a practice in obstetrics and gynecology. Three years of trial with this idea and with a general practice was not fruitful for him. What was fruitful for him was the time he spent as a volunteer in the Massachusetts General Hospital Laryngological Clinic. There he determined on a career in otolaryngology for himself. To prepare for that end, he went to Germany and took a four-month course in ear, nose, and throat, spending most of his time at Halle in Schwartze's old clinic under Grunert. He was back in Boston in 1902, in time to see the publication of his first article, "Notes on the Management of Anesthetic in Operations on the Respiratory Tract." There would be 88 more articles before the close of his career. That year Harvard Medical School named him an Assistant in Anatomy; and a year later, in 1903, the Massachusetts General Hospital appointed him an Assistant Laryngologist in its Out-Patient Department. Both of these were lowly posts, but they were enough for Harris Peyton Mosher to be off and running. He was 35 years old at the time.

In the year of his Harvard appointment, he invented his first instrument — a self-retaining tongue depressor. Eight years later, in 1910, he published a 123-page article on laryngoscopy, trach-

eoscopy, bronchoscopy, esophagoscopy, and gastroscopy, a classic paper for the time and one that reflected the activities of the Massachusetts General Hospital Laryngological Service under Coolidge. Like all of Mosher's papers, this one was superbly illustrated. Among the instruments depicted were 14 that Mosher had invented or developed: Mosher's adjustable speculum, Mosher's folding frame, Mosher's alligator forceps, Mosher's spiral wire forceps, Mosher's triangular fenestrated forceps, Mosher's esophagoscope, Mosher's oval esophagoscope, Mosher's mechanical dilator, Mosher's special wire cutter, Mosher's two bladed dilator, Mosher's curette, Mosher's safety-pin removing tube, Mosher's safety-pin forceps, and Mosher's tooth-plate cutter. Setting aside all judgement of the instruments' long-term value, the very fact that in eight years one man invented 15 instruments is truly staggering.

To avoid confusion in the minds of others, Mosher made it a practice to put his name on every instrument he invented or developed. He did this again when he devised his lacrimal apparatus operation. Toti had worked on the same operation some years earlier. A few critics, perhaps a little harsh in their judgement, declared that the Mosher operation was little more than a modification of Toti's original operation. In print the procedure was referred to as the Toti operation or the Toti–Mosher operation. But when H. P. Mosher, M.D., wrote on the operation, as he did on several occasions, he always referred to it as the Mosher–Toti operation.

Mosher gave credit to his father for his inventive skills. He gave credit to his mother for his artistic skills. This second group of skills he put to good use in his anatomical studies. During his early years at Harvard and the Massachusetts General Hospital, the same years he was busy inventing his 15 instruments, Mosher found time to do a series of excellent anatomical studies. Each study bore the mark of the artist, as well as that of the anatomist. A few of their titles are "The Anatomy of the Sphenoidal Sinus," "The Tonsil at Birth," "The Applied Anatomy of the Frontal Sinus," "The Premaxillary Wings and Deviations of the Septum," "The Form of the Hard Palate." Later in his career he would write his excellent study on "The Applied Anatomy and the Intra-Nasal Surgery of the Ethmoidal Labyrinth" and his series of papers on the esophagus. All of Mosher's anatomical papers, although some of them are 75 years old, can be read, as they say, with profit. There is a freshness and uniqueness of approach in them that is lacking in many of today's studies.

Those who knew Mosher say he was a better teacher than an anatomist. If this is so, then he must have been one of the finest teachers of laryngology Boston ever knew. Mosher himself makes the narrative of career as a teacher easy for us because he wrote at least five papers on how he thought medical students and post-graduate students should be trained in laryngology and how he did it. With a characteristic Mosher touch, he entitled his last paper "On Being a Professor Emeritus."

In 1906 Harvard Medical School placed all undergraduate and postgraduate teaching in laryngology at the Massachusetts General Hospital. The instruction was given in the Hospital's new Out-Patient Building in quarters that Mosher found compared favorably with those of the Charité of Berlin. Laryngology was required for all third-year men and was an elective for fourth-year men. Algernon Coolidge, Jr., the Assistant Professor of Laryngology, assigned Mosher the task of giving to each of the undergraduate sections eight lectures on the anatomy of the nose and throat. The Medical School gave him an appointment as Assistant in Laryngology.

Three years earlier, in 1903, on his own, Mosher had started in Harvard's Anatomy Department a special course on the applied anatomy of the nose, throat, and larynx. It was given in the evening, lasted one month, and was designed for graduates and specialists. It covered the same ground as the courses of Hajek of Vienna and Kopsch of Berlin. Its beginnings were modest, with only one senior student enrolled. Modest it did not remain. In time it became the "Mosher Course," an institution in laryngological training until 1939 when Mosher put away his charts for the last time, writing that to do so was ". . . a choky job."

In its heyday there was no course like the "Mosher Course," and there has not been one like it since. Remember, Mosher was two things: he was an anatomist with special interests in the sinuses, and he was an artist. To work with his hands, to measure a significant anatomical or surgical specimen, to draw it, or reproduce it in a permanent form gave him increasing and lasting pleasure. He tried to pass this on to his students, not always succeeding. It is recorded that one outspoken foreign student described the whole business as so much "mud, plaster, and glue."

It was Mosher's view that a man was not ready for surgery until he knew his anatomy. To learn their anatomy, his students had to make a comprehensive series of drawings of picked anatomical and surgical specimens. They also had to make a series of plaster casts

to supplement the drawings, using master casts or a cadaver. These casts were then painted. This was the "mud, plaster, and glue" part of the course. It was Mosher's contention that the completed casts constituted an anatomical and surgical library that ranked next to a cadaver for study and was always available for future study. One of his surprise quizzes was to toss a student a ball of clay and order him to close his eyes and make a model of the ethmoidal labyrinth. More than half of the men passed this test.

The course was a gruelling seven-week grind for the 10–20 students enrolled. They were expected to work from nine in the morning until ten at night. If they were married, their wives became actual widows. The course was hard on Mosher, too. For the seven weeks, he had to give up his clinical and administrative duties and his private practice. To give up the latter was not too much of a hardship for him. He rarely enjoyed dealing with patients; his brusque manner often offended them. The loss of revenue did not bother him, for he had a generous private income.

Whatever there was to criticize of Mosher and his teaching methods, whatever there was to the sacrifices made by the students and the teacher, the course was popular, the course was a success. No one knew the ethmoidal labyrinth like those who had learned its anatomy from Mosher, and a whole generation of laryngologists had that privilege.

During the period of World War I, there was no "Mosher Course." The teacher was off to be a soldier. During the Spanish-American War, he had served as a contract surgeon at Montauk Point. In 1915 he joined the first Harvard Unit and served with the British Army in France at General Hospital No. 22. Ten days after the United States declared war in April 1917, Mosher was in his own country's Army with a commission of Major. His first assignment was with the Surgeon General's Office; later he became chief of Oto-Laryngology with the rank of Colonel. As such, he was required to be responsible for the organization and conduct of departments of otolaryngology in Army hospitals. There were occasions when Mosher was appalled by what he found. Self-styled specialists seemed to spring up from the ground everywhere. It was all too apparent to him that many of the so-called otolaryngologists knew certain inadequacies in training and qualifications.

What Mosher had found in the Army had long been known to others interested in the well-being of otolaryngology as a speciality. Out of the many solutions brought forth after the war, only one seemed to make sense. If otolaryngology was to be a true speciality,

it would have to set its own standards and to police itself. The best way to achieve this was to establish a Board of Otolaryngology and to examine and certify all those who would practice ear, nose, and throat. The five national societies joined forces, and on November 10, 1924, the American Board of Otolaryngology became a reality. The American Laryngological Association named Mosher as one of its delegates. Joseph C. Beck, M.D., of Chicago proposed Mosher as President of the Board, and his election was unanimous. Mosher remained President for 22 years.

Two stories of Mosher's long tenure as President of the Board have come down to us. One is by Joseph C. Beck, M.D., and the other by Frederick T. Hill, M.D. First, that of Beck: He found Mosher to be the mildest-mannered individual on the Board; no one dealt more kindly than he when it came to a tottering candidate for certification. Yet, he always insisted on absolute fairness and demanded that the men know their stuff, if they wanted to pass. In his dealings, Mosher had mannerisms that were not understood by some doctors; they felt he had a chip on his shoulder.

Frederick T. Hill, M.D., of Waterville, Maine, tells much the same story up to a point: He acknowledges that the development of modern otolaryngology, with high standards of teaching, largely may be attributed to Mosher's dynamic leadership of the Board. But — 22 years was too long for him to be President of the Board. Although he always had the interests of the speciality in mind, he ran affairs with an iron hand. It became apparent to all that changes in the Board were needed. Someone had to tell Mosher it was time to go. That unpleasant task was given to Hill, who had been almost a son to him. Much to his surprise, Mosher accepted the message with good grace. He was made senior counselor and, as long as he was able, he continued to attend Board meetings and insisted on being put to work examining candidates.

This is a good place to list the other national offices and honors Mosher held and knew in his day.

He was President of the American Laryngological Association and the American Laryngological, Rhinological, and Otological Society in 1920; of the American Broncho-Esophagological Society in 1921; of the American Academy of Ophthalmology and Otolaryngology in 1929; and of the American Otological Society in 1938. In addition, he served as Chairman of the Section of Oto-Laryngology of the American Medical Association. In 1947 he was made an Honorary Fellow of the American College of Surgeons, and a Corresponding Fellow of the Royal Medical Society of Lon-

don, the British Laryngological Society and Medical Societies of Paris and Vienna. He was Guest of Honor of each of the four national societies and was the first American to deliver the Semon Lecture before the Laryngological Section of the Royal British Medical Society, receiving on that occasion the Semon Medal from the University of London. In 1934 he received the deRoaldes gold medal award and in 1947 the Newcomb Award of the American Laryngological Association. In 1937 he was presented with the gold medal of the American Academy of Ophthalmology and Otolaryngology. He was the recipient of honorary degrees of D.Sc. from the University of Pennsylvania, Colby College, and Jefferson Medical School, and of LL.D. from Wayne University.

Not mentioned in this listing are Mosher's various appointments at Harvard Medical School, the Massachusetts General Hospital, and the Massachusetts Eye and Ear Infirmary. They are a story unto themselves.

In 1920, when Algernon Coolidge retired, the Massachusetts General Hospital named Mosher its Chief of the Service of Laryngology. In 1923 Harvard appointed him Professor of Laryngology. Mosher recalled the appointment with these words: "I was happy as Assistant Professor under him (Coolidge) for many years and when he retired I slipped into the professorship. With the present feeling at Harvard about promoting assistant professors my appointment was a fortunate affair at least for me."

With the 1921 Staff appointments made, the Board of Managers put on record the nature of their association with Harvard Medical School. On May 3, 1921 the following statement was made:

> *Inasmuch as it was deemed to be for the mutual benefit of the Massachusetts Charitable Eye & Ear Infirmary and Harvard College that they should become associated for education purposes it was therefore*
>
> *VOTED: — That we give consideration to nominations by Harvard College to the offices of Ophthalmic Chiefs of Service and Aural Chiefs of Service and to the office of Laryngological Chief of Service in the Infirmary, and that we will permit access to the Infirmary to students of Harvard Medical School at reasonable hours.*

Earlier, Dr. Bradford, speaking perhaps as Dean of the Medical School or perhaps as President of the Board of Managers, had reminded all that if the Infirmary wished to make successful ap-

plication to Harvard for salaries for their Chiefs, it would be necessary to prove to the University that the Infirmary had attained or was approaching a stage of sufficiently ideal perfection to warrant the financial help from the University.

The year 1921 ended with Mosher, now Chief of Laryngology at the Infirmary as well as at the Massachusetts General Hospital, recommending to the Infirmary that present members of the Throat Service of the Massachusetts General Hospital be given the same position and rank on the Throat Staff of the Infirmary. There was nothing unusual with this recommendation. Members of the Eye Staff and the Ear Staff of the Infirmary held and had held for some time similar appointments on the Massachusetts General Hospital Staffs. The Mosher recommendation was approved.

1922 began with all Massachusetts General Hospital–Infirmary laryngological house cases being hospitalized and operated on in the Infirmary, all Massachusetts General Hospital–Infirmary laryngological outpatients being treated in the Massachusetts General Hospital's Out-Patient Clinics Building, teaching and training of residents and medical students was done in both institutions, all laryngological staff members of one hospital were automatically on the Staffs of both hospitals, and everything in laryngology was under the direction of Mosher, who was Chief of Laryngological Services of both hospitals.

Dr. Washburn, Director of both hospitals, was not entirely satisfied. He wanted the Massachusetts General Hospital Clinics Building and the main building of the Infirmary to be joined by a connecting building. This would give space for a true combination of all Out-Patient Departments of the two institutions, with a central admission room and other shared services. Such a new building would also provide space in the Infirmary for a staff of paid, nearly full-time physicians, men who would in time doubtless come to devote much of their energies to teaching and research. Year after year, Washburn made his plea to the Trustees of the Massachusetts General Hospital and the Managers of the Infirmary. He was certain his carefully devised plan would weld the two hospitals and their services into one, and that the hospitals and the public would be the better for it.

Under the presidency of Edward H. Bradford, the Infirmary's Board of Managers came to adopt a new outlook. For years, according to the Minutes of their meetings, no attention was given to the subjects of teaching and research at the Infirmary. Then at

their Annual Meeting of October 26, 1922, with Bradford in the chair, they passed the following resolution:

> *Whereas the Managers of the Massachusetts Charitable Eye and Ear Infirmary, believing it to be for the interest of their trust to give to the institution a position of prominence throughout the country, favor the promotion of teaching and medical investigation, especially such teaching as will attract to the Infirmary the medical graduates throughout the country who intend to devote their careers to the special work practiced at the Infirmary.*

In keeping with this resolution, the Managers were prepared to match funds given by Harvard to pay for the services of at least one Professor who would be willing to devote the greater part of his professional activities to caring for patients at the Infirmary, in promoting research work, and in teaching, particularly young specialists. Such a man, or men, would be selected by a joint Harvard–Infirmary committee.

The first man to qualify under the new plan was the Infirmary–Massachusetts General Hospital Chief of Laryngology, Harris Peyton Mosher. The agreement reached was that he would be granted a salary of $5,000 a year from the Infirmary, with the understanding that a similar sum would be paid him by Harvard University. It was understood that Dr. Mosher would make his first duty the interests of the Infirmary and Medical School in the care of patients, teaching, and research. Mosher was to have a paid assistant with an annual salary of $2,500, half from the Infirmary and half from Harvard. Mosher was to assume his duties on September 1, 1923. This was the sort of Infirmary appointment that Bradford had urged five years earlier.

Washburn, the Director, commented that the Mosher appointment was made with the same conditions as the Chiefs of Medical and Surgical Services of the Massachusetts General Hospital. His first duty was the care of patients, the advancement of the science of laryngology, research, and teaching. After his full duty to the Infirmary and School was done, he had the privilege of seeing a few private patients in his office in the Infirmary and having patients in the private wards.

Mosher declared that the Infirmary's full-time Service in Laryngology was the first in the country. The aim of the Service, as he saw it, was to give fuller instruction to the House Officers, to

develop postgraduate instruction, and to stimulate research. With this in mind, he lengthened his postgraduate course at the Medical School and offered it twice a year instead of once. He took into the house two postgraduate fellows for a year's course in laryngology. And he switched his "Friday Night" sessions into high gear.

A personal note on Dr. Mosher must be given. He was a man of wealth, having received a large inheritance from his father. An income from a private practice was not essential to him. He could afford to spend his own money on laboratory equipment — such funds had not been budgeted by the Infirmary. None of his colleagues on the Infirmary staff were in his position.

The Mosher appointment served to truly separate the Ear and Throat Services. Crockett and Hammond, Chiefs of the Aural Service, regarded the separation to work to the advantage of each department. There was a greater opportunity under the system for intensive study of diseases. Crockett and Hammond continued to serve as unpaid Joint Chiefs, as did Quackenboss and Spalding on the Ophthalmic Service.

Again the "four hats": the two for laryngology — the Harvard professorship and the Infirmary Chief-of-Service — were Mosher's. The two for otology — the Lecompte Professorship was Crockett's and the Service Chiefship he shared with Hammond. That is, until 1924.

When the Infirmary Executive Committee met on January 8, 1924, Dr. Washburn read a letter from Dr. Eugene A. Crockett, in which he tendered his resignation as Aural Chief-of-Service, to take effect July 1, 1924. He also sent a note of resignation from the Lecompte Professorship to Harvard.

Three weeks later, Dr. Bradford, President of the Board of Managers, wrote Crockett a letter asking him what his opinion was in regard to consolidating the ear, nose, and throat Services under one Chief on the occasion of his retirement as head of the Aural Department. In his reply, Crockett wrote that such a consolidation was in keeping with the trend of the times. Nearly all the men on the Staffs, Aural and Laryngological, did ear, nose, and throat work. But Crockett did not favor a consolidation of the Services. True, Mosher was a paid Chief of the Throat Service and from all accounts his performance was living up to everyone's expectations, but it took all of his time to do the job. How could he continue to do a first-class job in laryngology and assume in addition all the work that went with running the Aural Department? It was Crock-

ett's strong opinion that the Ear Service should have a separate Chief as at present, thus postgraduate and undergraduate instruction and research would know the best chance of advancement. He knew of four men on the Aural Staff who were fully capable of caring for the department. Bradford asked Crockett what the Staff's opinion on the matter might be. Crockett got opinions from 19 members of the Staff. Only two favored the idea of consolidation.

Among the four men on the Aural Staff that Crockett considered to be capable of caring for the department was David Harold Walker. Walker had begun his career at the Infirmary as a House Officer in 1902. By 1924 he had risen to the rank of Aural Surgeon and Assistant Professor of Otology. His formative years in otology had been spent as an assistant to Clarence J. Blake. Thus he was primarily interested in otology. All those who knew him described him as being a gentleman — gentle in speech, thought, and behavior. This fact helps to make the following oral tradition believable. When he learned that he was being considered by Harvard and the Infirmary for the Lecompte Professorship and Chief-of-Service, he resigned his Assistant Professorship and his Surgeonship to allow the two institutions to make their choice without being under any obligation to appoint him because he was the senior man. There is another piece of oral tradition. Strong forces were at work at Harvard and the Infirmary to bring about the consolidation under Mosher. What would Walker's reaction be should such a consolidation come about? As a neutral in the matter, George Derby, Chief of Ophthalmology, was sent to sound out Walker. They met on the neutral ground of an operating room in the Phillips House. Derby asked Walker if he would be an assistant to or a second professor to Mosher. Walker's answer was no.

On September 1, 1924, Harvard appointed D. Harold Walker its Walter Augustus Lecompte Professor of Otology and the Infirmary named him Chief of the Aural Service, along with Phillip Hammond. "Two hats" to Walker: "two hats" to Mosher.

Since it was incorporated in 1827, the Infirmary Board of Managers had held their Annual Meeting in the fall of the year. At this meeting officers were elected, committees were appointed, and members of the Surgical Staff were assigned to their positions for the coming year. Up until 1925, the Ear and Throat positions had been named Aural Surgeons, Assistant Aural Surgeons, Aural Clinical Assistants, Laryngologist, Associate Laryngologist, and Assistant Laryngologist. At the 1925 meeting, it was voted to abandon most of the titles and substitute Surgeons in Oto-Laryngology,

Associate Surgeons in Oto-Laryngology, Assistant Surgeons in Oto-Laryngology, and Clinical Assistants in Oto-Laryngology. Thirty-one men were assigned to these positions. The official recognition by the Infirmary of the existence of the surgical speciality of otolaryngology did not reach to the top rung of the appointment ladder. Here we find that Phillip Hammond, D. Harold Walker, and Harris P. Mosher were named Aural Chiefs-of-Service and that Mosher was also named Laryngological Chief-of-Service.

In 1925 there was one other important name change. The Massachusetts Charitable Eye and Ear Infirmary ceased to be. In its place came the Massachusetts Eye and Ear Infirmary. The Infirmary had received its first paying patients in 1916. Prior to that date, all patients had been charity or semicharity cases, a fact well-known in Boston. Now many of the private patients who were paying full rates objected to having their friends and neighbors infer from the name of the institution that they were free charity patients. The Surgeons found that the old name hindered them in persuading patients to come to the Infirmary. But there was more to the name-changing than the pleasing of patients and the easing of the way to more hospital business. The institution itself had changed. Once it had been a public charity; now it was a private non-profit voluntary hospital with some charitable activities. The Surgeons once worked as volunteers in the hospital on only charity cases. Now, in addition to charity work, they treated in the hospital their own private paying patients and the hospital knew income. Once the Surgeons were important to the functioning of the charity, now they were important to the Infirmary's economy. In the future, the Board of Managers would remember this fact when making Surgical Staff appointments.

The main building of the Infirmary had been completed in 1899. From that date, with the exception of some modernization, no extensive changes had been made. The Out-Patient Clinics were on the first floor, the Ophthalmic Clinic in the Charles Street wing, and the Aural Clinic in the Fruit Street wing. In 1903 the Massachusetts General Hospital built its Out-Patient Clinics Building on Grove Street and extending along Fruit Street. Between this building and the Infirmary was vacant land — an area Frederic Washburn, Joint Director, wanted to use for a connecting building to physically and clinically unite the two institutions. Year after year, his recommendations to the Massachusetts General Hospital Trustees and the Infirmary Managers got a respectful audience but no

action. When he did get action, it came about by a complicated chain of events.

This chain of events began in 1926 when Lucien Howe, a retired Buffalo, New York, ophthalmologist, approached Harvard Medical School with money to establish a research laboratory for ophthalmology. David Edsall, Dean of the Medical School, and George Derby, Professor of Ophthalmology and Chief of Ophthalmology at the Infirmary, thought the Infirmary would be the ideal place for such a research center. They went to the Board of Managers with a proposition that in general terms called for Harvard to assume, with the Howe money and other money, the financial burden of the laboratory and for the Infirmary to provide adequate space and other services. But the Infirmary had no space. The only sensible way at the time to get space was to enter into an agreement with the Massachusetts General Hospital to construct the connecting building Washburn wanted. So the Infirmary entered into an agreement that called for the building to be erected by and remain the property of the Massachusetts General Hospital. Suitable provision was made for the disposal of that part of the Infirmary land, in case the institutions ever separated their Out-Patient Departments. The Infirmary was to pay an agreed-upon amount for the use of space in the building.

As indicated, this agreement called for an important change in the Out-Patient Services. The Out-Patient Departments at the Infirmary would be consolidated with those of the General. The clinical management of the eye clinic, the ear clinic, and the throat clinic would be the responsibility of the Infirmary Surgical Staffs; the teaching of the medical students and the training of the House Officers would be the responsibility of the Infirmary teaching staff; but the business administration and management would be in the hands of the Massachusetts General Hospital.

The entire second floor of the new building was assigned to the Ear Clinic. There was a waiting area, hearing test rooms, operating, treatment, examining rooms, and the offices for the Chiefs-of-Service. The Chief could be Walker, or Hammond, or Mosher, depending on whose turn in the calendar it was. Adjoining this Clinic in the old Massachusetts General Hospital Out-Patient Building was the Laryngology Clinic. Here were the usual examining and treatment rooms, operating and recovery rooms, and the office of the Chief of Laryngology — always no one but Mosher. The new quarters were ready for use at the end of 1927. The Laryn-

gological Clinic with its entire staff was transferred to the jurisdiction of the Infirmary on January 1, 1928. After fifty-five years, the Massachusetts General Hospital was out of the laryngology business. The Infirmary had a monopoly on laryngology in its part of the city and at Harvard Medical School. Elsewhere in the country, laryngology was firmly a part of otolaryngology. This was not true at the Infirmary, with its two separate clinics divided by a common waiting area and ruled by separate Chiefs-of-Service.

With the construction of the connecting clinic building and the complete transfer of laryngology from the Massachusetts General Hospital to the Infirmary, affairs in otology and laryngology at the Infirmary settled down for a period that can be described as dull, that is if the sole source of information is the documents of the Infirmary. One reason for this state of affairs may have been the beginning of the shadow of the Great Depression. Another may have been a change in the makeup of the Board of Managers. Edward H. Bradford, M.D., died in 1926. A doctor, a professor, and a dean, he had brought a good knowledge of the problems of medical care and medical education to the Board's deliberations. His successor was selected from the legal profession. No one of Bradford's stature in medicine was appointed to the Board. With this, a seventy-three-year-old tradition came to an end.

Another reason for the dullness that marks the documents for the period may be that everyone had what could be legitimately wanted or needed. Washburn had his consolidated clinics; the Ophthalmic Department had its new clinic, its Howe Laboratory for research, and its Chiefship and Professorship in George Derby; the Aural Department had an up-to-date, roomy clinic and the Chiefs Hammond and Walker; and in the Laryngology Service, Mosher had enough to do to keep busy.

Each department, Aural and Laryngological, published its own annual report in the Infirmary Annual Report. The difference between the two Department reports is striking. Hammond and Walker's Annual Reports were brief, about three-fourths of a page in length. In them appeared such phrases as: "The past year was uneventful — the examination and treatment of out-patients is now being conducted on a plane nearly equaling that of house cases — an additional interne has been appointed during the year." The Reports written by Mosher for his department were two, three, even four pages long. In them he wrote of a bacteriological laboratory, the Bronchoscopic Clinic, the plastic surgery of V. Kazanjian, the Wednesday Clinical Meetings, the Monday night teaching

sessions, the Friday night sessions, his continuing work on the esophagus, the postgraduate fellows, and that all tonsil and adenoid cases were now operated as house cases. There is no question that the best and most productive years of Mosher's career as a teacher, investigator, and administrator were those years — 1923–32 — when he was in complete charge of the Infirmary's Laryngology Department and all of its operations.

Dullness at the Infirmary came to an end on November 9, 1931. On that date Phillip Hammond submitted to the Board of Managers his resignation as Aural Chief-of-Service. It was to take effect on February 8, 1932. Hammond was 60 years old and had served in the Aural Department for the incredible total of 39 years. When the Board of Managers on January 19, 1932 prepared its list of Officers for 1932, D. Harold Walker and Harris P. Mosher were named Aural Chiefs-of-Service and Mosher was named Laryngological Chief-of-Service. On May 9, 1932 the Minutes of the Board of Managers carried this item: "The resignation of Dr. Harold Walker as Aural Chief of Service was read and accepted, with regret. On a motion made and seconded it was VOTED: To appoint Dr. D. Harold Walker Consulting Aural Surgeon."

Between January 9, 1932 and May 9, 1932, occurred the final act of a drama that had been going on for over twenty-five years. Only one piece of solid evidence of what happened and why it happened has come down to us. In his Annual Director's Report for 1932, Frederic A. Washburn, M.D., wrote these words: "Vacancies caused by the resignation of Dr. Hammond last year and of Dr. Walker this year have not been filled. Dr. H. P. Mosher has automatically become Chief of both Aural and Laryngological Services. The professorships at the school have been united in him also."

So the "four hats" came to Harris Peyton Mosher, M.D.: Professor of Laryngology, Chief of Laryngology, Walter Augustus Lecompte Professorship of Otology, Chief of Otology. He was 66 years old.

Of all the oral tradition surrounding this affair, only one tale will be told. The combination of otology and laryngology in hospitals and teaching centers had become a fact in many places. Walker was Professor of Otology and Chief of the Aural Service. Mosher was Professor of Laryngology and Chief of Laryngology. One Sunday morning while Walker was preparing a lecture, Mosher came to him with the news that Harvard Medical School wanted to amalgamate the two departments with one paid chief. Mosher suggested to the 59-year-old Walker that he resign his posts and gave Walker

the impression that he, Mosher, would also resign his posts. This would give the School and the Infirmary freedom to choose anyone considered worthy of the combined post. Walker, true to his character, resigned his posts; Mosher did not resign his. Within days he, to repeat Washburn's words, ". . . automatically became Chief of both Aural and Laryngological Services. The professorships at the School were united in him also." The tale ends with the comment, "Mosher tricked Walker."

There can be no doubt that Walker was deeply hurt. Years later, after continuing to serve the Infirmary well and having risen to a place on the Board of Managers, he remarked: "With one exception, my association with the Infirmary for 55 years has been very interesting." While Surgeon and Chief, all had feelings of love and admiration for him with the result that there was less friction than at any other time and the morale of the Aural Service was high. One small criticism of Walker has come down to us: ". . . he always had great plans that never materialized."

It is said that Mosher was the first man since Oliver Wendell Holmes to hold two professorships at the same time at Harvard Medical School. This unusual state of affairs came about because the terms of the Lecompte bequest made it mandatory that the Professorship and its income remain separate and identifiable. Without court action, it could not become the Lecompte Professorship of Oto-Laryngology; it had to remain the Lecompte Professorship of Otology. There was nothing that forbade one man from holding this Professorship and an additional Professorship, as did Mosher and his successors with the Professorship of Laryngology. So it is to this day that on the books of Harvard Medical School there is the Department of Otology and the Department of Laryngology with one man holding both Professorships and heading both departments.

At the Infirmary the title that Mosher took was that of Chief of Otology and Laryngology. Over the years this changed to Chief of Oto-Laryngology, and it is now written as Chief of Otolaryngology. The question crosses the mind whether much attention is given today to the exact spelling and wording of the title, so closely have the two disciplines become wedded in everyone's mind. Mosher liked to be thought of as "the Chief," the title giving him more silent satisfaction than that of Professor.

Mosher once wrote that he had spend his whole medical life surrounded by young men. By this, he meant that he had spent his life teaching, training, and working with the neophytes of oto-

Harris Peyton Mosher, M.D. (1867–1954). The Chief.

laryngology. He loved every minute of it. The number of men, young and old, that he taught in the almost forty years of his career numbered literally in the hundreds. They came to him as undergraduates, graduates, clerks, fellows, residents, and practitioners. They came to his "Wednesday Nights," his "Friday Nights," his regular courses, and his special courses. One admirer once said that the Mosher alumni were the Who's Who of American otolaryngology of the time. With all of them he acted, to use his own words, ". . . as the Lord's first assistant." He held the belief that most students did not get enough help from the Lord and it was his duty to lend a hand.

At the close of his career, he found that the speciality he had served was now a shrinking one. It had once been proudly surgical, but now chemotherapy was making inroads; and who knew how far that would go. Bronchoscopy and esophagoscopy, to which he had given so much of his energies, was being swallowed up by

thoracic surgery. He advised young men entering the speciality to equip themselves to do neck surgery. He recognized that for some men laryngology was too narrow a speciality unless combined with otology. For such men, because otology was always on the edges of brain surgery, he recommended having a working knowledge of neurology and a certain proficiency in brain surgery. He envied those who were young, for their great adventures were before them; his had passed. As for the speciality of laryngology and specialism in general, his words were: "The strength of specialism is specialism. Paradoxically its weakness is also specialism."

Mosher reached a peak as an investigator, educator, and administrator in the 1920s, when he was "Mr. Laryngology" at the Infirmary and Harvard. His period of wearing the "four hats" — 1932–September 1939 — was marked with many of the same activities that had been present in the earlier period. However, on reading through his writings and reports, a certain absence of zest, of innovative thinking is noted. It may be there was truth in Crockett's 1924 observation that the care of the two departments was beyond the capacity of one man, even a Mosher. Or it may be that he was just getting old.

Mosher had a medical creed that read in part: "Get a hospital connection. Never resign. Work to the age limit." He was over 66 when he received his coveted appointments at Harvard and the Infirmary. By today's standards, he had worked to the age limit and beyond. But true to his creed, he would not resign. Members of the Staff and the Board of Managers patiently waited as one year after another went by. Mosher would remain "the Chief." It has been hinted that as with his Presidency of the Board of Oto-Laryngology, someone had to suggest to him that it was time to go. But he got in as much time as he could. He submitted his resignation in September 1938; it was not to take effect for another year, September 1939. He was then 72 years old. By rule he became a Professor Emeritus, a role he likened to being one with the living dead.

Reading through all the words written about Mosher, reading through all the words he wrote about himself, listening to everything that is said about him by those who knew him, one is left with a picture of a strange and complex man, of a man who succeeded in doing so much that was good, of a man whose failures were almost exclusively in the area of human relations. A clue to one facet of his nature can be found in these words taken from one

of the last letters he wrote: "The hunger to be remembered ends only with life's last breath." .

Harris Peyton Mosher's life's last breath was drawn on November 4, 1954; he was in his 88th year.

At the Infirmary and at Harvard, Mosher is remembered as the institution's first Joint Chief of Otology and Laryngology and the first man to be at the same time the Professor of Otology and the Professor of Laryngology — the first man to wear the "four hats." In addition, there is the Mosher Laboratory, which he founded and funded. In the eponyms of medicine, there is the Mosher's cells — ethmoidal sinus extensions beneath the bulla ethmoidalis, described by him in 1902; and the Toti–Mosher operation or, as he always referred to it in his writings on the subject, the Mosher–Toti operation.

When the Board of Managers received Mosher's resignation on September 14, 1938, they appointed a committee to name his successor. The committee did its work and on June 8, 1939, it was voted: "To appoint LeRoy A. Schall subject to approval by Harvard Medical School." Harvard gave its approval and before the year's end, Dr. Schall took over the two professorships — the second man to wear the "four hats."

It remained for Dr. Schall to put an end to a relic of the development of the specialities of otology and laryngology — the separate clinics. In 1947 he obtained funds that allowed for the remodelling of the clinics and their long-overdue consolidation. At last the Aural Service and the Laryngology Service truly became the Oto-Laryngology Service.

★ 11 ★

Two Years and Three Months

November 4, 1873–February 1, 1876

The decade of the 1870s began on a sad note for the Infirmary. At the Annual Meeting held on October 26, 1871, Edward Reynolds resigned his appointments as Consulting Surgeon and Manager. Forty-seven years earlier, October 1, 1824, he and John Jeffries had founded the Boston Eye Infirmary. Some months after the resignation, his son, John P. Reynolds, presented a photograph-portrait of Dr. Reynolds to the Infirmary. The portrait, now in the Infirmary Archives, was always regarded by the Reynolds family as an admirable likeness of the doctor. When it was taken, he was sixty-seven years old. The Managers ordered that the likeness be hung in the Reception Room of the Infirmary in order that all who benefited by the charity would be reminded of the debt of gratitude they owed him. Edward Reynolds lived on for ten more years, dying on Christmas Day 1881, while in his 89th year.

The resignation of Reynolds heralded the beginning of troubled times for the Infirmary. On rare occasions, the unhappy thought was voiced that the Infirmary might not survive, that its burdens were too heavy, its revenues too small and uncertain. In its first 26 years, 24,339 patients had been treated. From May 1850 to October 1867, a period of 17 years, the number increased by 49,797. In 1871 the whole number treated reached 5,258, and in 1872 the number was 5,995. This upward trend was certain to continue because ". . . the poorer classes were fully awake to the value of the institution and were deposed to avail themselves of its charity."

The poorer classes availed themselves of the charity of the Infirmary in such numbers that in 1872 the institution operated in the red to the sum of $2,480. The coming year might bring a deficit of more than $3,000. The Treasurer sadly noted that a whole year had passed without a single liberal donation or legacy. It was the hospital accommodations required for those who needed medical treatment and in-house care that caused nearly all the cost of carrying on the institution. The Managers saw no alternative, if the Infirmary wished to continue to care for house patients, but to turn to the state for an increased appropriation. Before such an appeal could be made in good faith, they had to be certain they were

operating their trust as efficiently as possible. A survey showed that perhaps they were not. Greater efficiency could come if they took the authority to manage the house away from the Matron–Superintendent and gave it to a medical Superintendent, with a Matron functioning as a housekeeper. The system had worked to good advantage elsewhere.

Such an action might take care of the first purpose of the Infirmary, which was ". . . to relieve the sufferings and disabilities of those unfortunates who were obliged by poverty to present themselves, often reluctantly, for medical treatment at a charitable institution." But what was to be done about the second purpose of the Infirmary, which was to allow the institution's facilities to be used as a training center by medical students interested in becoming ophthalmologists and otologists? The Surgeons conducted their survey. They concluded that the post of Assistant to the Surgeons was no longer of value as an instrument of instruction. The post should be abolished and a system of interne and externe, similar to the one that had worked well at Boston City Hospital, should be put into effect. They so petitioned the Managers.

The crisis of the early 1870s was not the first crisis the Infirmary had known; it would not be the last. To face these crises and to find solutions to the problems they created was the task of the Board of Managers. The solution they espoused to meet the crisis of the early 1870s was to place much of the management of the house and the supervision of the care of the house patients in the hands of a medical Superintendent, and to create the posts of Interne and Externe requested by the Surgeons.

How wise the Managers' decision proved to be is narrated in this chapter. Quite extensive use has been made of all of the documents in the Archives. The purpose had been to cover as completely as possible the tenure of the first medical Superintendent: November 4, 1873 to February 1, 1876 — two years and three months. The story of his efforts and of his trials is not always a happy story.

On November 4, 1873, at their regular Quarterly Meeting, the Board of Managers elected the Surgeons for the ensuing year: Ophthalmic Surgeons — Gustavus Hay, Hasket Derby, Henry L. Shaw, Francis P. Sprague, B. Joy Jeffries, and Robert Willard; Aural Surgeons — Clarence J. Blake and Henry L. Shaw. At a later date, they would act on the petition of the Surgeons to abolish the post of Assistant to the Surgeons and create the post of Ophthalmic and Aural Interne and Ophthalmic and Aural Externe.

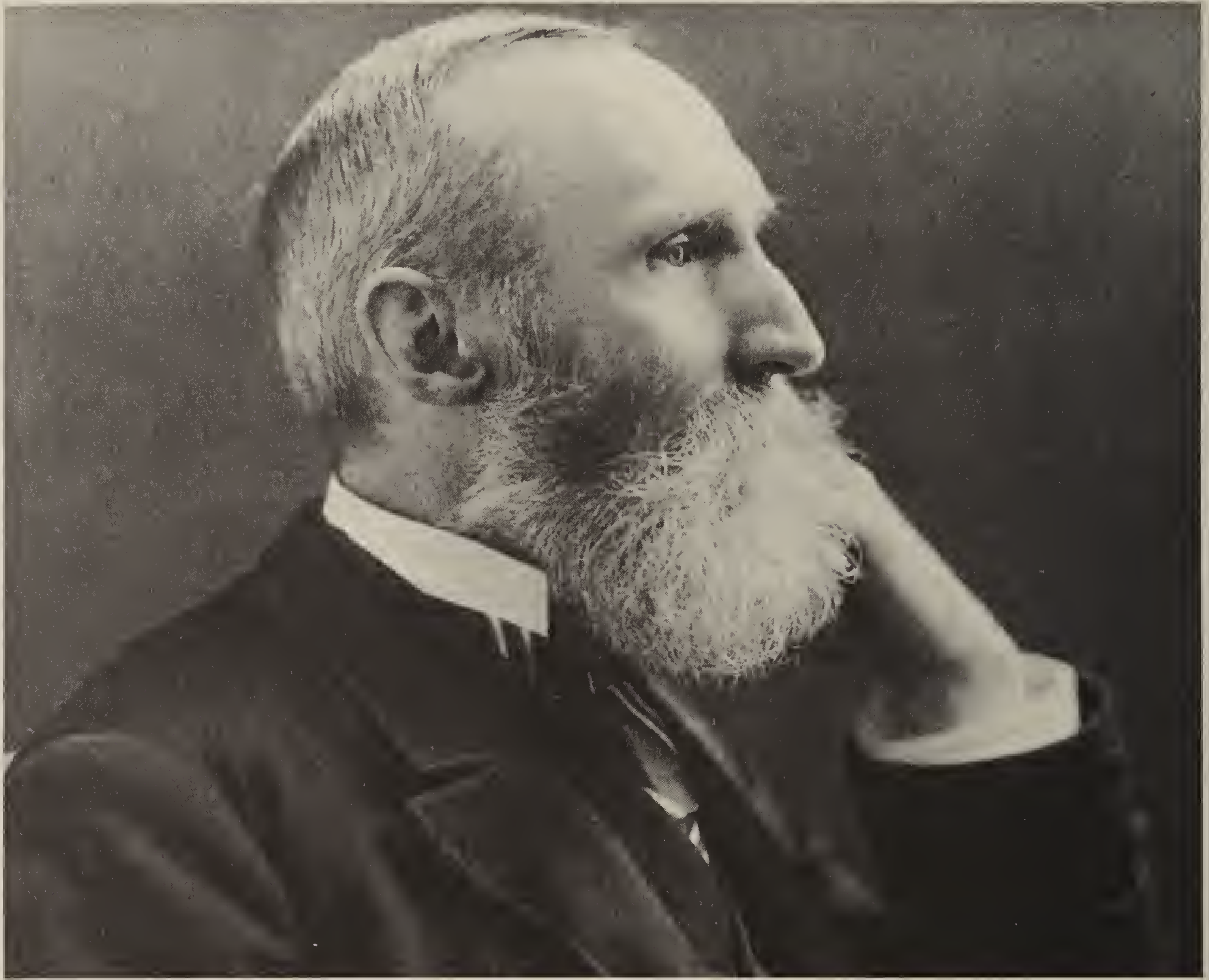
The Board went on to appoint Dr. A. N. Blodgett to be Assistant and Superintendent with an annual salary of $500 and subject to regulations to be prepared by a Committee. Mrs. Mary G. Watson was rechosen Matron of the Infirmary with the same salary as the previous year. Since 1850 the offices of Matron and Superintendent had been held by one person, always a woman. Blodgett was the first man to be in charge of the affairs of the house of the Massachusetts Charitable Eye and Ear Infirmary. Until the Managers appointed the Interne and the Externe, he would also serve as Assistant to the Surgeons.

Albert Novatus Blodgett, born February 18, 1848 in Guildhall, Vermont, was 25 years old when he was appointed the first medical Superintendent of the Infirmary. In 1870 he had served as Surgical House Officer at the Massachusetts General Hospital and in 1871 he received his M.D. degree from Harvard. For two years he had served as Physician to the House of the Good Samaritan. He declared that he was the first extramural Instructor of Normal Pathology and Histology to members of the Staff of the Massachusetts General Hospital and to students of Harvard Medical School.

He may have been a bit young for the job. He was certainly a little insecure with his appointment, for in his letter of acceptance to President Edward H. Clarke, M.D., he asked for some official notice and he also asked that the Matron and the Surgeons be notified of the same, as this would ". . . contribute to the comfort of his administration." His beginnings were not auspicious. The first time the Visiting Committee came to inspect his establishment, he did not have the necessary documents and ledgers in order, even though he had been told in writing to do so. The Visitors were understanding.

The appointment of a medical Superintendent called for the office to be subject to regulations to be prepared by a Committee. That Committee did its work and the new Regulations were accepted February 3, 1874. The Regulations show that the Managers were reluctant to hand over too much power in running the day-to-day affairs of the Infirmary to a medical superintendent. The idea of a Superintendent had worked well at the Massachusetts General Hospital and at the Boston City Hospital. Would it work at the Infirmary? While they waited for an answer, the Managers were careful and vested large powers in their Visiting Committee.

The Managers took turns serving on the Visiting Committee, two Managers at a time. The Regulations called for them to meet every Monday morning at the Infirmary at ten o'clock. They were



Albert Novatus Blodgett, M.D. (1848–1923). First Medical Superintendent of the Infirmary — 1873–1876.

to examine carefully the state of every part of the establishment and ascertain whether the officers and attendants were fulfilling their duties faithfully and humanely. They had the power to give orders and establish such regulations from time to time as they thought proper to effect the objects of the institution. They examined the accounts of the Superintendent and of the Matron and determined if the expenditures were proper and should be allowed. A record was kept of all of their actions for the full Board of Managers.

The Visiting Committee had great power over the house patients. On their weekly visits, the Superintendent provided them with a list of the patients and they were to see each of them, if practicable. They were to certify the admission of all patients and their terms of payment or nonpayment. They were to question the patients closely on their financial affairs, if any, and on their family

affairs. They could discharge or continue every patient for cause after the expiration of three weeks from the time of admission. They could at all times dismiss any patient whom they thought to be improperly admitted or, for any cause, unfit to be retained in the house or they could alter the rules of admission.

A similar system was in effect at the New York Eye and Ear Infirmary. At that institution, the Trustees not only questioned the house patients on personal money matters, they also went into the outpatient clinic and interviewed patients there on the same subject. One time they became so aggressive in this that the Surgeons complained. There is no record that a similar incident ever took place at the Massachusetts Eye and Ear Infirmary.

Under the direction of the Visiting Committee, the Superintendent, Dr. Blodgett, had the general charge and oversight of the Infirmary. He made the purchases of provisions and stores, subject to the direction of the Treasurer. He bought all medicines and other articles required by the Surgeons. All receipts from patients were his to collect. He had to submit the record of the receipts and expenditures of his department to the Visiting Committee, whenever required to do so. The welfare and comfort of the house patients was his responsibility. Subject to the Visiting Committee, he had full authority over all inmates of the institution for the preservation of discipline and order. He had to report all violations of rules and regulations to the Visiting Committee and be subject to their direction. One area where the Superintendent seems to have been free to act on his own was in the hiring, overseeing, and directing of all nurses and men servants in and about the Infirmary. The last task required of him by the Regulations was that he would make one visit to the house every day after the visits of the Surgeons. It should be noted that the position of Superintendent of the Infirmary was not a full-time job.

The Regulations gave the Matron the care of the rooms and furniture of the Infirmary. She was responsible for the safekeeping, economical use, and expenditure of the provisions and stores. Female domestic servants were hers to hire or discharge. She paid them on an order from the Superintendent. When the Superintendent was absent, she had full authority over the inmates of the Infirmary and was responsible for their behavior and care. The Visiting Committee received an accurate account from her each quarter of her department.

The Regulations allowed the Superintendent to admit patients to the house, subject to a later review and approval by the Visiting

Committee. He could also refuse any patient for sufficient reason, subject to approval by the Visiting Committee; and he could dismiss any patient, again with the approval of the Committee and after consultation with the attending Surgeon.

The beds in the house were numbered and distributed among the Surgeons from time to time by the Visiting Committee, so as to divide the Surgeons' labor as equally as possible. The Superintendent then assigned the beds to the patients, first filling those of the Surgeon of the day, so far as they sufficed for the accommodation of new patients. He then assigned the remaining patients to other Surgeons in proportion to existing vacancies. With the sanction of the Surgeons and the Visiting Committee, he could at any time change the beds of the patients in the house. Each Surgeon was expected to treat the cases that had been assigned to his beds by the Superintendent. The Surgeons could borrow or exchange beds among themselves, subject to review by the Visiting Committee. They could make use of vacant or available beds in special cases of need, subject again to review.

These provisions did not sit well with the Board of Surgeons. For years they had managed the problem of beds in their own fashion with no guidelines. Now they were required to take direction from a man who was, in some cases, young enough to be their son. Ten days after the Managers had approved the new Regulations, the Surgeons held their regular meeting. Dr. Jeffries was most upset. He insisted on making a motion and having it acted upon: "That it is the sense of the Surgeons, that the Regulations giving the Superintendent power to assign patients to Surgeons is contrary to the necessary freedom of action on the part of the Surgeons." The motion was defeated by a vote of three to two. This incident marked the beginning of an unhappy feud between Blodgett and the Surgeons, one that simmered throughout his tenure.

The Managers' carefully worked-out rules for the utilization of beds was put to a test on August 5, 1874. J. Wiley Edmands and Augustus Lowell made a call on the house as members of the Visiting Committee. The list of patients presented to them by Blodgett gave the house population as being 13 males and 13 females. The Visitors recommended seven free patients for continuance. One free patient, Margaret H—, raised doubts in their minds. They directed Superintendent Blodgett to pass on their decision to the patient's Surgeon. That Surgeon had the reputation of being a "prickly personality."

Margaret H— had been admitted as a free patient on January 31, 1874, more than six months earlier. Her record shows that she was 26 years old, was born in Ireland, living in Salem, had granular ophthalmia in both eyes, and pannus in both eyes. The record goes on: "From the State Almshouse at Tewkesbury." A line is drawn through this last entry. There is nothing more to her record. This was unusual, for the Staff had been put on alert by the threat of a lawsuit and they had become meticulous in keeping their records.

When the Visitors left, Blodgett wrote a note to the "prickly personality," and here he bungled the matter. Instead of using a letterhead of the hospital, he used a small scrap of paper from his desk. Also, he could have phrased his message in a better way: "Mr. Edmands and Mr. Lowell wish me to say to you that in their opinion it would be best for Margaret H— to be discharged on Monday next Aug. 9th — unless some fresh cause for continuance should meantime present itself."

The "prickly personality" chose to communicate with Mr. Augustus Lowell, not with Superintendent Blodgett. He wrote that he could see no reason to discharge the patient, her eyes were far from well, she had posed no behavior problem. He went on to write that he thought it only a matter of common courtesy that he should have been consulted before any decision had been reached regarding discharging her. ". . . I should like to know on what grounds it is best to discharge, for the Infirmary or the patient." As he saw it, the action would be injurious to the patient. Whether or not the Infirmary would know any benefit was beyond his power to determine.

Messrs. Edmands and Lowell next visited the Infirmary on August 8, 1874 and once again expressed their doubts as to the wisdom of continuing Margaret H— as a free patient.

Three days later "prickly personality" again wrote to Mr. Lowell. This time his tone was more moderate. Lowell may have sent him a copy of the Regulations. He told how the patient had been first under his care and then under the care of Dr. Derby, now she was back under his care again. Little progress had been made in treating her until about two months ago. As the case stood now, there was a good prospect of a cure if he could keep her under treatment for just three more weeks. This would be an act of mercy. To date her rate of cure had been remarkable, as she had been almost entirely blind. He assured Mr. Lowell that he and all the attending Surgeons were most anxious to keep the beds as free as possible from long cases.

Margaret H— stayed in the house three more weeks. She was discharged: "Well."

There were 45 beds in the Infirmary when Blodgett took over as Superintendent in November 1873. Never were all of these in use. The highest rate of occupancy was 40 and the lowest 14. Male patients usually outnumbered the female patients. Fifty percent to 60 percent paid the full charge of board or a smaller sum. During Blodgett's first year, 1873–74, $1,500 was collected from paying patients. No patient had been refused admission to the Infirmary on account of inability to pay board, nor had any paying patient been discharged on account of inability to continue the payment of board. That year there were 6,652 visits to the outpatient clinics — 4,810 ophthalmic and 1,842 aural. The house patients totaled 396. The cost of operating the Infirmary was of the order of $14,000. About 80 percent of this sum went for board and care of house patients, 10 percent for medicines and surgical supplies, and 10 percent to maintain the outpatient clinics.

During his first few weeks on the job, Blodgett knew a degree of rapport with the Surgeons. They invited him to witness interesting operations. At the time, the Infirmary was under the threat of a lawsuit by a patient who had had an eye enucleated. Greater care came to be exercised in the preservation and examination of pathological specimens. In the absence of Dr. Jefferies, Microscopist and Curator of the Pathological Cabinet, the Surgeons made use of Blodgett's skill as a histologist and pathologist. Two of his reports are in the patients' records. One specimen, a tumor, examined by him under the microscope, he declared to be a sarcoma. The second case was that of an eye that had been enucleated because the operation for senile cataract had gone wrong. Blodgett's report is quite complete and a good piece of medical writing.

The house patients of the Infirmary may have been happy to a degree during Blodgett's tenure. He purchased benches for them to sit on while waiting, and he added twelve iron bedsteads of improved pattern to take the place of those unfit for use. For their comfort several donations had been received. From the Somerset Club came several years of the *Atlantic Monthly*. A friend sent about thirty volumes of books of an entertaining character. Toys and clothing came from other friends. "The ladies of the Flower Mission kindly included the Infirmary in the number of their beneficiaries and adorned the tables of the patients with bouquets of beautiful flowers, renewing them very often, and showing a warm interest in the welfare of the sick." Miss Curtis was most kind in

her attendance during the afternoons reading to the female patients, and providing entertainment for the men. She also presented to the male ward a substantial checker-table with checkers.

As the medical Superintendent of the Infirmary, it was Blodgett's responsibility to see that the house patients knew proper care, that they were comfortable, fed, received the treatment ordered by the Surgeons, and that they behaved themselves. Only once was it necessary for him to discharge a patient for being disorderly and disobeying the rules of the house.

The surgical and medical treatment of the patients was the responsibility of the Surgeons. Reading through the case records of the period, one is struck time and again by how very little they had to work with in the way of therapeutics. The Surgeons of the Infirmary were as good as any, but they were captives of the time. The Aural Surgeons when faced with a case of inflammation of the ear used warm syringing, extra diet, flaxseed or fig poultices, and morphia. If these failed, and they often did, the last recourse was a Wilde incision with a von Graefe knife. In cases of specific iritis, the Ophthalmic Surgeons could use brandy or whiskey, quinine, atropine, leeches, calomel insufflations, good diet, and foot baths. If the pain became too great, some of Dr. Sprague's "salve" would be rubbed on the brow. Constipation was treated by large drafts of Rochelle salts and Dr. Willard's "pills."

But it was often the patients themselves, their lifestyle, their honest ignorance, plus the physical limitations of the Infirmary itself that could spell doom for them and unhappiness for the Surgeons. Witness these two cases:

343 — Jeffries — Nov. 16, 1875
Jennie B—

Age 9. Born — Newton, Living — Brighton.
Pt. was a puny, weak scrofulous girl whose left eye had been enucleated for sympathetic ophthalmia by Dr. Marcy of Cambridgeport. Right eye — Ulcer of cornea above & general grayish infiltration, mucopurlent secretions from conjunctiva of lids, lids swollen with upper hanging over the lower one, the same on the other side to the extent of 1/2 an inch where the lids hung over there was great excoriation. The lids were edematous.
Treatment — *Codliver oil and quinine. Wine whey.*
Wednesday — Pulse still high, 133 per min. Temp. Child complained of its throat but nothing seen. Cleanliness enforced but not perfectly carried out by the mother who was admitted for this purpose.

A number of sizeable scars were seen over the frontal region running over the medial line resembling those of Herpes zoster.
Nov. 20th — *The mother took the child away against the entreaties of the Surgeons and the express desire of the father.*

132 — Shaw — May 15th, 1875.
Ear Patient
Kate H—

Age — 16. Born — Ireland. Living — Charlestown
Pt. was taken in for otitis media, purulent catarrh, & polypus but symptoms of meningitis having developed was discharged for treatment elsewhere.
Discharged — *May 20th, 1875.*
Pt. died two days after from cerebro-spinal meningitis.

Important to the Ophthalmic Surgeons was what was known as the "dark-cure." This was a combined treatment of ocular rest in a darkened room with the previous application of an artificial leech behind the ear or in the temporal region not too far from the margin of the orbit. Best results were known in cases of intraocular congestion, especially of the choroid, and irratative or progessive myopia. Blood would be drawn toward evening, 1 to 2 cylinders from one side, and on the next day, the same amount from the other. After this the patient should remain in bed and in the dark for 24 to 36 hours.

To use the "dark-cure," it was necessary to have a "dark ward." One of the first requests the Surgeons made of Blodgett was for him to relocate the "dark ward" of the male ward. It was located on the front of the house, very near the street, and was at all times noisy and uncomfortable. His answer was to use a back room, formerly the "dining room" of the male patients, and turn it into a "dark ward." The area proved to be much quieter, the light easier to control than in the front of the house, and the condition of the patients much more comfortable. In the months ahead, according to the records, the "dark ward" would be a great cause of friction between Blodgett and the Surgeons.

The Surgeons needed their "dark ward," Blodget needed a safe and a desk and a place to transact his business. He acquired his office equipment and located it on one side of the dining room. One piece of business he had was to inform the Managers that the posts they created of Ophthalmic and Aural Interne and Ophthalmic

and Aural Externe had been filled by William S. Dennett, M.D., and Mr. Jonas Clarke. Both men were in daily attendance at the Infirmary and in discharge of their duties. Formerly, many of their duties had been performed by Blodgett as the Assistant to the Surgeons, a now-discontinued position. It was Blodgett's opinion, respectfully submitted, that future candidates for the posts could be recruited at Harvard Medical School and by competitive examinations. The Managers acted on his suggestion.

When the Managers met for their regular Quarterly Meeting on August 4, 1874, they quickly went through the business of hearing the usual reports, confirming the appointment of Mr. Jonas Clarke, Jr., as Externe, and acting on the resignation of Mrs. Mary G. Watson as Matron. Mrs. Watson had served for 17 years. She was succeeded by Mrs. Eliza M. Whitford at salary of $400 a year plus room and board. With that business out of the way, the Managers settled back to listen to a letter that had been written to them by Calvin Ellis, M.D., Dean of Harvard Medical School. Ellis had been Dean of the School since 1869. With the vigorous support of President Eliot, he had initiated in the school long-over-due reforms. It is interesting to note that 1870 Harvard Medical School had 301 students and that 58 of them had A.B. degrees. The income for the year was $30,496.67. If the dreams of Ellis and Eliot were to be realized, the Medical School would know a different class of students, more of them, an enlarged faculty, larger quarters, and would need a larger income.

The building Ellis had to use was at Grove and Fruit Streets, not too distant from the Bulfinch Building of the Massachusetts General Hospital. There were those at the Massachusetts General Hospital who saw no reason for the school to be there. The building had been erected in the late 1840s and was certainly too small for what Ellis and Eliot had in mind. Cooperative members of the Faculty were appointed to a committee to raise $200,000 for a building fund. Just where the building was to be located was a question not answered. Should it be near a hospital? Should it be somewhere midway between the General and Boston City Hospital? Or would it be wise to retain the present building and enlarge it? The sites considered were many, and each had its proponents. And it was at this point that the Infirmary entered the picture.

Incidentally, Calvin Ellis, M.D., Dean of Harvard Medical School, became President of the Infirmary Board of Managers in 1877 on the death of Dr. Edward H. Clarke.

Dean Ellis's suggestion to the Managers was a simple one. The

Medical School would exchange its building and land on Fruit Street for the Infirmary's building and land on Charles Street. This could work to the advantage of the Infirmary. Its clinical activities would be brought closer, geographically, to the clinical activities of the General. Should the Infirmary's precarious financial condition continue, there was a chance, if the Infirmary was located on land next to the General, that there could be a merger of the two institutions. As for the Medical School, the Infirmary building and land was in a good location for the School and there was enough land for expansion.

Not everyone on the Board of Managers agreed with this line of thinking. Dr. Robert W. Hooper, one of the senior members, wrote to Augustus Lowell, the Secretary: "I should be sorry to merge our Infirmary in another institution though one as respectable as the Mass. Gen'l. Hospital unless our financial condition requires it." Hooper had joined the Infirmary Surgical Staff as an Assistant Surgeon in 1836; six years later he was made a Surgeon; and in 1871 he retired from the Surgical Staff and became a member of the Board of Managers. When he used the phrase "our Infirmary," he gave expression to the deep sense of personal involvement known to many of the Infirmary men of his generation. The Infirmary was their Infirmary; it commanded their concern and their loyalty.

When Hooper and his colleagues discussed the Ellis letter, they were in the unusual position of having no concern for the immediate financial future of the Infirmary. That crisis had passed for the time being. A few months earlier one of their number, John Blanchard, had died and had remembered the Infirmary in his will with a $1,000 bequest. Another man, Benjamin Hudson, had died about the same time and he too had remembered the Infirmary in his will. His bequest was for $22,000. Hudson was quite unknown to members of the Board and his support had never been solicited. Preserved in the Minutes of the Meetings of the Board of Managers is a letter of Benjamin Hudson. Because it reflects the thinking of many of the Infirmary donors of the time, it is reproduced here in part:

> *. . . that if we have anything to leave it should be to useful public institutions, here named as being among the best for ameliorating the unhappy condition of a portion of our fellow creatures which our father in heaven has permitted to be afflictied in that way which has excited my most pitiful feelings, and preserving the life and health*

of those who might otherwise suffer, by adopting those means which while it retains them among their friends on Earth, confers on them additional causes for gratitude and praise, with reverence to obey the will and pleasure of our Father in Heaven.

The Blanchard and Hudson bequests gave the Managers a feeling of affluence and with that feeling came the thought that the scope of the charity could be broadened. They could set up a fund to buy glasses for the use of patients after treatment. This would be a great boon to many who could not afford to pay for them. Money could be employed in supplying clothing for the more destitute class of patients. Perhaps they could get rid of long-term cases by providing temporary support to those who no longer needed to be retained in the hospital, and yet were unfit for work. They asked Hasket Derby, M.D., about the matter and he thought $200 would amply cover all the cost of glasses that might be given away each year, and that an additional $100 for clothes would materially increase the usefulness of the charity.

To return to Albert N. Blodgett: He closed his first year as Superintendent by reporting to the Managers that not enough time had passed to know the ultimate condition and working of the institution under the improved code of rules laid down for the guidance of the officers. Some of the regulations had hardly found application in the succession of changes that the year past had developed. He went on to write that the improved capability of the house had not been quite so largely claimed by the patients admitted as boarders as was done the previous year. There had been a decrease of 37 patients.

The Managers responded by re-electing him Superintendent and appointing a committee to consider his application for an increase in salary. The same committee was to act on a communication for the Board of Surgeons in regards to the duties of Blodgett as Superintendent. The result of the last charge was to take the Regulations approved earlier in the year, make minor changes, and print and distribute copies of them to all interested parties.

At the Board of Surgeons' last meeting in 1874: "It was moved and seconded that the Board of Managers be requested to remove the present Superintendent A. N. Blodgett." The motion did not pass. On that note, Dr. Blodgett began his second year as Superintendent of the Massachusetts Charitable Eye and Ear Infirmary.

The action of the Surgeons may have been based on this incident. In October 1874, an 18-year-old clerk had been admitted for gon-

orrhoeal ophthalmia. The condition did not yield to treatment, and on December 9 it was necessary to enucleate his right eye. The remaining eye, the left one, knew iridochoroiditis. Leeches were used to the temple, and the patient was assigned to the "dark ward." Morphine was used for pain. There was extreme photophobia and profuse lachrymation. Now to quote from the case record: "Had been kept in the dark constantly. Was taken out into the dining room and kept there by Dr. Blodgett contrary to express orders about two weeks ago and for ten days after he was much worse." It was necessary to put Dr. Sprague's "salve" to use and the patient had but one attack of pain. The unfortunate young man stayed in the house for four months, while all efforts were made to save his one eye. On two occasions, consultations were held on advisability of enucleating his remaining eye. His record ends in July 1875, noting that he had the barest amount of vision.

The case had been one of the most difficult the Surgeons had had to contend with during the period. There is no question that they saw in Blodgett's action one cause contributing to their failure. The chief Surgeon of the case was the "prickly personality."

Quite properly, no mention of the matter was made by Blodgett in his quarterly report to the Managers on July 16, 1875. He wrote that the progress of the affairs of the Eye and Ear Infirmary was unusually satisfactory. The number of house patients for the last quarter had been larger than normal — 152. The amount of board collected had been larger than in any previous quarter in the history of the Infirmary — the sum of $560 having been collected.

Some attention had been given to the grounds and some improvements to the exterior of the buildings, so a much more agreeable appearance was presented than ever before. It was now a practice to close the gates of the yard for the day at 11 o'clock ". . . thus shutting out troops of children and idlers, not to speak of numerous dogs, and sundry horses which before paid daily visits to the grounds." He thought something should be done about the shed building before it fell down. His report closes: "The domestic relations of the Institution are at present in a state of most satisfactory and harmonious working."

As the "dark ward" case illustrates, patients with ocular manifestations of venereal diseases were treated in the clinic and house of the Infirmary. Infirmary employees with the question of venereal disease was another story. Blodgett had on his payroll a young man as a porter who was thought to have syphilis. He was suspended from duty for two months and then he asked to be re-

engaged. The problem was one Blodgett did not feel he could manage, so he turned to President Edward H. Clarke for guidance. Blodgett wrote that he had not been able to replace the man for the money allowed for the purpose by the Infirmary and that the man was a most trustworthy and reliable servant, whom he personally very much missed, for the duties the man rendered were not those belonging to the stewards. He went on that Dr. Derby thought the man could return to duty, even though he had known no treatment and presented on no visible portion of his body the slightest trace of efflorescence.

The matter was passed on by Dr. Clarke to the Board of Surgeons for an opinion. They were unable to express themselves positively as to the physical condition of the porter, but requested that on other grounds he be not reappointed. Dr. Derby dissented. The Managers told Dr. Blodgett not to rehire the man.

The time came for Dr. Blodgett and a second "dark ward" case. On October 21, 1875, a nine-year-old boy was admitted with a wound in the ciliary region. The cut was smooth and there was vitreous presenting. Atropine was instilled, a shade compressive bandage used, and the patient was sent to the "dark ward." Again, to quote from the case record: "On the morning of the 22nd Pt. was moved from the dark room into the long ward downstairs, contrary to the wishes and express orders of the attending surgeon, where he stayed part of the forenoon without the protection of a screen."

Fortunately no lasting harm was done. The patient was returned to the "dark ward," and the therapy continued. The wound healed gradually, and he was allowed to go home a month later. Unfortunately, eight years later the patient returned. He had known a blow to the eye, inflammation had set in, and enucleation was advised.

The fiscal year of 1874–75 drew to an end, the time for Annual Reports and the time for appointments to be renewed or terminated was at hand.

The report of J. Wiley Edmands, Treasurer, is of interest:

The receipts for the year had been		
from State grant		*7500*
Bequest & Subscriptions	*1000*	
From "grateful patients"	*3*	*1003*
Board of patients		*1560*
Interest and dividends		*7143.37*
		17,206.37

The expenses for the year had been

Repairs	*760.46*
House Furnishing including Fuel	*2117.33*
Provisions	*6255.51*
Medicines & Instruments	*1566.77*
House Services (Salaries & Wages)	*4225.58*
Miscellaneous	*669.66*
	15,595.31

A report Dr. Hasket Derby made to J. Wiley Edmands is also of interest. In the previous July, the Managers had received a letter from one of the Ophthalmic Surgeons, the "prickly personality," complaining of Dr. Blodgett, the Superintendent. The letter was given to a committee with full powers to examine into the matter. They turned to Hasket Derby, senior Ophthalmic Surgeon. Derby's reply reached them a few days before the Annual Meeting. He told the Managers that he had talked to the Surgeon and that the Surgeon expressed very plainly his opinion that such an altercation as took place between himself and the Superintendent was in every way undesirable and to be regretted. The words he used were not intended to convey a threat of personal violence and were uttered hastily, under excitement induced by exhausting labor on his part. Blodgett had shown a conspicuous want of tact. It was Derby's belief that such a thing would not happen again.

The Annual Meeting was held in the office of the Secretary, Augustus Lowell. Dr. Edward H. Clarke was re-elected President. The Derby letter and report was read and placed on file. Two small pieces of business were taken care of. The Managers moved on to the election of Surgeons and Officers. All of the Surgical Staff were returned to office, as were the two Internes. Mrs. Whitford was rechosen Matron with a salary of $400. And then: "Dr. Albert N. Blodgett was re-elected Superintendent."

Two days later, Secretary Lowell received a letter from Dr. Blodgett declining the office for a longer period of time. One reason he gave was that he had a desire to devote himself more completely to the study and practice of the science of medicine than he had presently been able to do. A second reason he gave was that the increasing usefulness of the charity of the Infirmary required a corresponding greater expense of time upon the part of the Superintendent for the proper transaction of the business connected with it, thus to a certain extent intruding upon the other duties of

his life as a physician. Remember, the office of Superintendent of the Infirmary was a part-time job.

He thanked the Board of Managers and the Visiting Committee ". . . for the uniform kindness they had ever shown toward an officer whose duties required an unusual amount of advice and consideration from those placed over him." If they wished, he would continue in the office until a successor was appointed. He closed his letter: "I have the honor to remain your very humble servant."

The next Quarterly Meeting of Managers was held on February 1, 1876. Again they met in the office of Secretary Augustus Lowell. The last item in the Minutes reads: "The resignation of Dr. Blodgett as Superintendent was received and accepted, and Dr. George Stedman was elected to fill the office for the current year with a salary of Five Hundred Dollars."

Dr. Stedman served as medical Superintendent until 1895. Milder in manner than Blodgett, he managed most of the time to give service that was satisfactory to the Managers and the Surgeons. The Infirmary, however, did not know the full advantage of the medical superintendent system until Farrar Cobb, M.D., took over from Stedman and was given powers and privileges that his two predecessors had been denied.

Upon reading the documents and letters in the Archives, sympathy is known for Blodgett. All of his reports show him to have been an enthusiastic administrator, not afraid to introduce innovations into the house, and eager to discard old practices. He was certainly prudent in money matters and considerate of the patients. All in all, he seems to have enjoyed his work. He deserved better than he received.

A review of his tenure shows that for the first nine months his principal assistant, the Matron, was most unhappy. His appointment had stripped her of much of the authority she had known for 17 years. And for the first seven months, he had held two appointments: Assistant to the Surgeons and Superintendent. With the first appointment, he was very subordinate to the Surgeons; with the second appointment he was their equal, their coworker, and in one area, their superior. No wonder the Surgeons questioned the true nature of his position. He waited for three months for the Managers to spell out the powers and responsibilities of his position, the rules and regulations he was to enforce. The rules regarding beds were the most difficult to enforce; the older Surgeons did not understand

them and resented them, yet he had to do the job. Fortunately, the Managers came to his support. His faults seem to have been his age (that he could not change), a lack of experience in hospital management (there were few who had such experience), and a "conspicuous want of tact." He served the Infirmary as its first medical Superintendent from November 4, 1873 to February 1, 1876 — two years and three months.

The brief records show that Blodgett was honest when he gave his reasons for resigning, and that he bore no ill-will toward the Infirmary. In later years, when called upon to give information on his professional career, he always entered the fact that he was the first Superintendent of the Infirmary. After he left the Infirmary, he had a satisfying career that knew activity in organized medicine, teaching, writing, and editing. From his home and office at 51 Massachusetts Avenue, Boston, he continued his interests in clinical medicine, pathology, and hygiene. For twelve years, he was Secretary of the Massachusetts Medical Society, Suffolk District.

Albert Novatus Blodgett, M.D., first medical Superintendent of the Massachusetts Charitable Eye and Ear Infirmary, died on July 23, 1923. He was 75 years old.

★ 12 ★

Nursing Education

1895–1925

In the last decade of the nineteenth century the Infirmary Regulations were changed and the medical Superintendent was given the power to appoint and discharge the Matron, Assistant Matron, and the Apothecary and to hire and discharge all nurses and servants. He had the immediate supervision of the surgical and nursing departments, except as to the treatment of patients. The Clinical Assistants, House Officers, and Externes were under his control. All purchases of furniture, provisions, medicines, surgical instruments, and supplies were his to make. In June 1895 this position with its powers and responsibilities went to Farrar Cobb, M.D., a 29-year-old graduate of Harvard Medical School. Cobb, very much the protégé of J. Collins Warren, M.D., President of the Infirmary Board of Managers, had been brought into the Infirmary to make long-overdue changes in management and patient care.

There was little Cobb could do about the buildings of the Infirmary where in matters of construction and sanitary arrangements, he considered all things to be far behind the requirements of the time. Only a new building would change that sad state of affairs. Where he could put his talents to work was in the internal management of the house and in the care of the patients. To accomplish what he knew had to be done, he turned to the profession of the trained nurse.

Professionally trained nurses, "nurses of the latest fashion," had been on the Boston scene since 1879, when the first school of nursing in the United States was established at the New England Hospital for Women and Children. By 1890 there were 30 nursing schools in the country, graduating 470 nurses each year. In general, the medical profession welcomed the trained nurse as the "woman of the hour." But there were some doctors who had their reservations, as illustrated by these quotations taken from the literature of the time: "The doctor's responsibility as to the nursing service is like that of a captain to his ship. . . . nurses were often conceited and too unconscious of the due subordination owed to the medical profession, of which they are a sort of useful parasite. . . . Nurses are to be docile, submissive, and kept in their proper place. . . . with

the right sort of notions of their duties, they will eventually prove a blessing to the sick of all classes of the community. . . . nursing is the natural vehicle for women in medicine."

For much of its 70 years, the Infirmary, in common with many hospitals of the time, had not used nurses who had been trained by any systematic instruction. The many excellent women they had employed had "acquired their skills as the result of sheer force of character, and not due to any system." In 1889 the Aural Surgeons requested a trained nurse whose first duty was to attend upon the house and aural patients and serve in the daily Aural Clinic. George Stedman, M.D., then the Infirmary's medical Superintendent, replied to the request: "It is granted that the two head nurses at present employed are sufficiently qualified. The new nurse at present employed is an intelligent young woman, willing and anxious to learn, and I think under the tuition of the two head nurses she will become proficient. Under the present organization we pay one nurse $4.00 per week. Trained nurses will have to be paid $12.00 to $14.00 per week. It is comparatively seldom that we have an operative case which demands the attention of a nurse skilled in the care of general surgical cases and it would therefore be more economical to employ a special nurse when such an operation is performed. Again, it is suggested that we employ one trained nurse whose duty shall be to superintend and teach the other nurses. If any change is planned, I advise the latter plan." The Managers appointed a committee to look into the matter. If they accepted Stedman's advice, the result was that no great change took place in the nursing care of the Infirmary.

Farrar Cobb provided proof for this last statement when he made his first Superintendent's Report to the Managers in August 1895. With the exception of the Aural Department, he had found the force of nurses to be entirely inadequate in point of numbers and efficiency. One of the head nurses was unable to read or write. The condition of the wards and beds was filthy and unsanitary to the last degree. Many instances of gross neglect had come to his attention. As he saw things, the Infirmary would not bear comparison with any modern hospital, and that it was not possible to overstate the deplorable condition of the charity. His firm belief was that no progress towards bettering conditions could be made before a competent and well-equipped corps of nurses was established. Upon assuming his post as medical Superintendent, his first action had been to remove the Matron, a woman of the "old school," and replace her with Miss C. E. M. Somerville, R.N., as Matron

and Superintendent of Nurses. Of Miss Somerville, he wrote: "She is a woman, large experience in hospitals, highest attainments in institutional work, and a woman of refinement and culture." Miss Somerville was a graduate of Boston City Hospital School of Nursing and for five years had served as Superintendent of Nurses at the Lawrence General Hospital. Not only did he place her in charge of all nursing care, he also put her in full charge of the housekeeping and supplies. It was his hope and plan that with her help he would be able to establish at the Infirmary a modified Post-Graduate School of Nursing "by which arrangement the Infirmary could obtain skilled nursing at a minimum price per head," and know "the most service from the fewest nurses at the least expense."

Miss Somerville's salary was $720 a year plus her room and board. Dr. Cobb's salary was $1,500 a year.

At the time, four of the Boston hospitals had training schools for nurses. Cobb felt that as a special hospital the Infirmary was not suited for the general training of nurses. Rather, through affiliations with general hospital training schools, the Infirmary would engage in the postgraduate training of ophthalmic and aural nursing. In addition, the Infirmary would conduct a program of ward attendant nurses (or nurses aides) training. This second group would be composed of young women of good character who were interested in hospital work, but were without skills or training. They would be taken into the Infirmary, given instruction in routine hospital duties and in the basics of patient care. When their year's probation was up, the best of them would be encouraged to enter one of the general hospital training schools. Thus the Infirmary would perform a public service and would participate in the overall program of nursing education by providing schools with well-oriented students. In this manner, the Infirmary's nursing personnel procurement problems would be solved. Had he tried, Cobb could have made the economics of his program more attractive. This was not necessary. The Board of Managers approved the program on its educational merits alone.

In 1895, Cobb's first year as Superintendent and the year he began his experiment in nursing education, the Infirmary treated 19,150 new patients — 14,204 ophthalmic patients and 4,946 aural patients. An average of 253 outpatients were seen daily in the clinics. The occupancy of the wards was a daily average of 61 patients. The average length of stay was 31 days. The per capita expenses per week per ward patient was $12.18.

In a matter of days following the Managers' approval, Dr. Cobb

and Miss Somerville sent letters detailing plans of the Infirmary program to the Superintendents of nursing schools in the United States and Canada. Their letters met with a gratifying response. By the end of October, the school started to function. Lectures and classes for the nurses began and much interest was shown by the Attending Staff and the House Officers. Miss Somerville had under her supervision and instruction four head graduate nurses and 12 pupil graduate nurses. She could have used four to six more nurses. The outpatient departments, in regard to cleanliness, were put in charge of the training school. The clerical work in the clinics was assigned to a nurse and the salary of the old clerk, $400 a year, was saved. The number of male employees, wardmasters as they were termed, was cut.

Nurses entering the Infirmary Post-Graduate Program had to have graduated from a regular hospital training school. Their diploma and a letter from the head of their hospital would admit them. They were as young as 20 and as old as 33. They came from schools of hospitals in Boston, Washington, D.C., Philadelphia, Detroit, Montreal, Toronto, and Texas. In 1900 there were 65 applicants; 32 were accepted, 26 received diplomas, and 6 failed. This was a peak year. In later years, the number of applicants dropped to an average of 35, with 18 being accepted and 14 receiving diplomas.

The course of instruction consisted of four months of practical work in the Aural and Ophthalmic Wards, the Out-Patient Departments, operating, sterilizing, and dressing rooms, with lectures and classes by the Visiting Surgeons, the House Officers, and the Superintendent of Nurses. The lectures followed a graded course, beginning with the anatomy, physiology, and pathology of the eye and ear, and concluding with the applied treatment of the same, and the relation of general nursing to the eye and ear specialties. At the end of the four-month course, after passing a satisfactory examination, the pupil nurses received the diploma of the school.

Pupil nurses were required, while on duty, to wear the uniform of the school, for which they were charged the cost of making. They were expected to spend three weeks on night duty. They were given their room and board — two nurses in one room. And they were required to obey all deportment rules of the house. Their remuneration was $15 a month.

Pupil Nurse Mary Coonahan was typical of the first group. She had graduated from Blockley General Hospital School of Nursing, Philadelphia, in May 1890. On December 1, 1895, she came to the

Infirmary for the four-month course. Her second day saw her on duty in Ward "K," two days later she went on a three-week tour of duty in the "Isol" Ward, then back to Ward "K" for two weeks as an assistant. One week in the Male Ward "G," and then she was put in charge of the Ward. The last seven weeks of her training were in the Aural Department, spending mornings in the Clinic. Dr. Cobb and Superintendent Somerville were pleased with Mary Coonahan. When she graduated, they asked her to stay six months in the Aural House and to have charge of the operating room and the Clinic at $30 a month and her room and board.

The attendant nurses were accepted for training as they were needed. The girls had to have a recommendation. This they could get from a family doctor, a nurse, the Gray Nuns, the Y.W.C.A., the Women's Educational and Industrial Union, a person of standing in their community, or from an Infirmary Surgeon. The candidates ranged in age from 17 to 45. Once accepted, they knew a probationary period of three months. If they passed this, they were offered work for nine months to complete the year. Then their work contract could be renewed for a year, or if qualified and willing, they were urged to apply to a training school for nurses. Their wages began at $15 a month and reached a peak of $20 a month plus room and board.

This in brief was Dr. Cobb's nursing education plan for the Infirmary. He soon learned, however, that it was one thing to propose a program and have it approved and another thing to implement it and continue it. The hospital he headed had sixty beds, two very active outpatient clinics, and two operating rooms. These were housed in a 45-year-old "illy contrived" building and in two adjoining dwellings that had been altered for patient-care purposes. As noted, Cobb himself had condemned these structures. He found it a major task to attract professional women to work in such quarters. In two years time, three of his nursing Superintendents came and went: Miss C. E. M. Somerville, July 1, 1895–January 22, 1896; Miss Elizabeth Godwin, January 23, 1896–March 1, 1896; and Miss Gertrude E. Evarts, March 1, 1896–July 26, 1897. In August 1897 Farrar Cobb, M.D., was able to engage the woman who would stay, one who would make his hospital and his postgraduate training program her career. Her name — Mary Coonahan, R.N. — the typical student nurse of the first days of the school.

Details on the genesis and the early years of the Nursing School can be found in Dr. Cobb's special reports to the Managers. After

the turn of the century, information on the program comes almost exclusively from those sections of the Annual Reports written by Cobb. These last reports are not as informative as his earlier reports to the Managers.

Cobb's efforts, and those of his Superintendent of Nurses, were restricted in the old building; but following 1899, when the "new" Infirmary building was opened, the program flourished. Each year the number of classes and lectures increased, so that by 1914 they reached the number of 114 per session. These were given by the senior nurse instructors, the House Officers, the Surgical Staff, and members of the new Social Service Department. The subjects covered by the lectures were Anatomy and Physiology of the Eye and Ear, Clinical Diseases and surgery of the same, Aural and Ophthalmic Nursing and special nursing for brain abscess, the Hospital Formulary, the Nurse as a Social Worker, Teaching the Blind and the Deaf, Hospital Management, Refraction, Infants Food, Sterilizing, Etherizing, Operation Room Techniques, and the Ear in Art and History. In 1912 the course was increased from four months to five months and the remuneration set at $72 for the period.

Note: There are no records on how the Nurse Attendants Program functioned, how many were enrolled, and what formal instruction was given, and after the first few years, how many of them went on to hospital training schools. By 1915 the nurse attendants were excluded, as far as possible, from the actual nursing of the patients. Their work consisted of routine ward work, the serving of diets, the care of the linen, clothing, bathing, and other bodily care of the patient, and nursery work. When the number of student nurses increased, the attendants were further excluded from the actual nursing of the patients. It is surmised that this program did not meet all of Cobb's expectations.

The number of graduate nurses taking the Infirmary course in the calendar year was never large during Cobb's tenure. They went from a high of 32 in one year to a low of nine in another year; applicants from a high of 65 to a low of 20; diplomas granted from a high of 26 to a low of seven. When Cobb retired in 1915, he could write that 360 nurses had graduated from the school in its 20 years history. The object of his school had been to train a group of women in the care of the eye and the ear, so that the knowledge they gained might be a factor in saving sight and hearing. This philosophy he passed on to his successor, the next medical Superintendent of the Infirmary, Frederic A. Washburn, M.D.

When Cobb took over the Infirmary in 1895, he had been like

a fresh wind; when Washburn took over in 1915, he was like a hurricane. One of the first things he did was to relieve Mary Coonahan of her duties as Matron. Her title became that of Superintendent of Nurses. The housekeeping duties she had known as Matron were given to an Assistant Superintendent. This meant that Mary was free to devote all of her time to supervision of nursing care and nursing education.

Another change that Washburn made was to allow Mary Coonahan, R.N., Superintendent of Nurses, to write her department's reports for publication in the Infirmary's Annual Reports. Unlike those of Cobb, hers were lively, informative, and full of pride and hope for her profession.

Coonahan had a large vision of the role nurses with special training in ophthalmic and aural nursing could play. As she saw it, not only would the nurses care for patients, they would disseminate knowledge as Social Service Workers, Public Health Nurses, School Nurses, Head Nurses in other hospitals, and as workers in many activities to assist in teaching the public what may be done to retain the faculties of sight and hearing. Students would come from other countries; after graduating and leaving Boston to take positions elsewhere, they would carry the benefit of their training far from the Infirmary.

With Washburn's active support, Coonahan set about to enlarge and change the Nursing Education Programs. One most important innovation was to allow certain student nurses from the Massachusetts General Hospital Training School for Nurses to come to the Infirmary and take a 60-day elective course in eye and ear nursing. Washburn's directorship at the Massachusetts General Hospital eased the path of this idea. There were hopes that similar arrangements could be made with other hospitals in the area. Another change made was to give daily bedside instruction by special instructors, four hours a day. The theoretical training was simplified, amplified, and more definitely related to the practical work. Exclusive of bedside instruction, 250 hours of theory was given in lectures, classes, and demonstrations. Special courses were begun for those with an interest in hospital management. Opportunities to act as Heads of Departments were given to those who intended to make hospital work their specialty. The first year of the new order saw 50 students enrolled in the regular course.

The abundance of student nurses to do the "practical work" reduced the number of nurse attendants needed. All operating room work, all outpatient work, all care of the seriously ill patients, and

the greater part of all treatments were done by nurses and student nurses. As Mary Coonahan saw it, the first duty of the Infirmary to the student nurse was teaching, the elimination from her schedule of routine ward work.

In 1915 the Infirmary had 174 beds in the regular house and 40 beds in the isolation wards of the Gardner Building. There were 1,794 ophthalmic house patients and 1,852 aural house patients — total 3,646. The average length of stay was 15 days and the cost per week per house patient was $17.46. The Out-Patient Clinics were visited by 39,300 ophthalmic patients and 28,326 aural patients — total 67,626. At the close of 1915, there were 56 workers in the nursing department. The payroll for supervision of the nurses and for nursing care was $11,442.23, the payroll for nurse attendants was $4,649.64. The total payroll for the nursing department was $16,091.87.

Mary could report that the first year under the new plan had been the most successful the Programs had known to date. The improvements that had been anticipated had become realities. Yet, as Mary wrote, the effects of World War I were being felt on the Infirmary nursing force. Many students entering the course had been called to service by the Red Cross, various services, and the Army before completing their studies. A number of applicants failed to keep their appointments for the same reasons. In spite of this, for a time she was able to continue her program of having all the actual nursing of the patients done by student nurses, with the attendants doing the ward and nursery work, diets and bathing. She did not have to cut the number of hours of theory given to the students. The Infirmary's efforts along purely educational lines to reach public health nurses, social service workers, and nurses had met with a satisfactory response. Looking to the future, to the problems and demands the war would bring, she advanced the idea that the Infirmary should take in groups connected with the war services and give them intensive training for a shorter period of time than the regular course. There is no record that the proper authorities acted on her recommendation.

As the war continued, greater difficulties were created. The entire executive staff of nurses, with the exception of three, either entered the service or were taken for reasons due to the war. The most serious aspect of this was that there were few teachers of experience left. Many of the doctors who had been instructors also left. Mary wrote: "However, by rearrangement of the work, by conservation

of time, and by extra work, the remaining force made it possible to give the entire number of classes, lectures, and bedside demonstrations."

In the aftermath of World War I, a fresh problem came to the nursing service of the Infirmary and to the services of other hospitals as well. Nursing and nursing education had gained a bad name. During the war and immediately after it, new career opportunities had opened to women. Jobs far more attractive and less demanding than nursing were theirs to compete for. Mary Coonahan devoted a large part of her 1920 report to a review of the situation. Her words are a reasoned yet bitter indictment.

In her program at the Infirmary she had tried to have the "students be relieved from the laborious hospital housework, so destructive to the energy and purpose of the woman who wanted training in the care of the sick." Thus her students had time to think, to study, and to bring unfatigued bodies and minds to the instruction which the Infirmary offered them. She knew that in all too many hospital schools the exact opposite was true, that all too often a so-called school gave students no education, or at best a poor one. The students would find no classroom, little equipment, few teachers, and often none who had the time or the ability to teach. The young girl would be viewed not as a student, but only as a worker.

Excessively long hours and heavy work were common to every training school. As many as 50 percent of the students would drop out in the first six weeks. The average working week for a student nurse was 52 hours. It was not uncommon to find night schedules of 84 hours a week, fairly common to find one of 70, and quite uncommon to find one of less than 56 hours a week. The average school allowed two weeks vacation per year; in the more generous, four weeks each year was given. Further, in the average training school all classes, lectures, and demonstrations were given in the nurses' off-duty hours; also all preparation for theoretical work. The recreations and normal social life of the average young woman, the student nurse knew chiefly by hearsay.

How, Mary asked, did this state of affairs affect the Infirmary? The Infirmary, being a special hospital, was not in a position to attempt general training of student nurses. The Infirmary had to rely entirely on general hospital training schools through affiliations for students. Students were not coming to the Infirmary because the affiliated hospitals were short of nurses and students. The stu-

dents were needed as a work force in their home hospitals; they could not be spared for special training at the Infirmary, even when they requested it.

Mary's remedy was a simple one. Training schools needed the moral and financial support of the general public. She closed: ". . . demand that conditions found in them shall be such that your most precious daughter may find health, happiness, and golden opportunity in her service to the sick should she 'train to be a nurse.' "

About this time, in 1920, the Post-Graduate Training Program for Nurses at the Infirmary was reorganized. It was planned to graduate about 50 nurses a year. Three separate courses were to be given: I — a two-month course of lectures, demonstrations, and practical work; II — a three-month course that combined course I with one month of social service training; and III — courses I and II with two additional months of X-ray, etherizing, and executive work. And Mary Coonahan was to supervise this program and the work of a nursing staff estimated to number about one hundred.

The 55 students who entered the 1921 class of the Infirmary Post-Graduate Training School for Nurses did not have Mary Coonahan, R.N., as Superintendent. She was on a year's leave of absence to have a much needed rest. Her substitute, Harriet L. Hunt, R.N., directed teaching that followed closely that of the previous year and the usual number of lectures and demonstrations were given.

1922 was Mary Coonahan's last full year as head of the nursing and nursing education at the Infirmary. Since its inception in 1895, the education program had graduated 652 nurses. Generally, Mary was pleased with what had been done, but Mary being Mary wanted more. She desired a greater number of students from affiliated schools. The Infirmary had the facilities for teaching a much larger group. The need for graduate nurses with special training in eye, ear, nose, and throat care was keenly felt. The Training School Office was not always able to supply desired assistance to those who asked. She was pleased to note that a special report on nursing education by the Rockefeller Foundation was in accord with her philosophy and her long-time practice at the Infirmary that much of the routine and non-educational work in caring for the sick could be successfully carried out by the employment of the attendant or nurse-aide, thereby economizing the time and strength of the student nurse for important and educational nursing. She made her last plea for a shorter work week for the student nurse —48 hours a week, preferably 44 hours.

Farrar Cobb, M.D., retired as medical Superintendent of the Infirmary in 1915. The Infirmary Managers, when they selected his successor, made a choice that would have a profound and long-term effect. The man selected was the highly qualified Frederic Augustus Washburn, M.D. Dr. Washburn had been Assistant Director of the Massachusetts General Hospital in 1898–99 and in 1903–8. In 1908 the Trustees of the Massachusetts General Hospital elected him the hospital's Director. Then came the vote of the Infirmary Managers. What that vote meant to Washburn, the General, and the Infirmary is best illustrated by this quotation taken from Washburn's history of the Massachusetts General Hospital: "In 1915 it became an established policy that the Director of the Massachusetts General Hospital and the Massachusetts Eye and Ear Infirmary should be the same individual. Thus, the Infirmary, although a separate corporation, is practically another unit of one great institution."

Knowing that Washburn regarded the Infirmary as "practically another unit of one great institution," the appointment he made to succeed Mary Coonahan as the Infirmary's Superintendent of Nurses should have surprised no one. The woman he named to the post was Sally Johnson, R.N., who had been Superintendent of Nurses and the Principal of the Training School at the Massachusetts General Hospital since 1920. It was Washburn's plan that Miss Johnson should be in charge of nursing and nursing education at both hospitals. Her assistant, Miss Helen Potter, would give her whole time to work at the Infirmary. Both women had the highest qualifications as administrators and educators. It was Washburn's opinion that the Infirmary was most fortunate in securing their services, "I regard the outlook for a high standard in our nursing service as most promising." Miss Johnson's Infirmary salary was $600 a year.

Their first summer, that of 1923, was a trying one for Miss Johnson and Miss Potter, even though the personnel at the Infirmary had patience with them, faith in them, and cooperated with them. They were early in their jobs when they found that the great need of the Infirmary was for more pupil nurses and for more graduate nurses with special training in the care of ear, nose, and throat cases to aid in the teaching. There was so much that could be done and should be done in teaching special skills at the Infirmary. Sally Johnson proved to be a visionary equal to Mary Coonahan. It was her view that any general nurse could only profit from a period of training at the Infirmary. "What a force . . . there would

be in Massachusetts if even fifty per cent of her graduate nurses possessed the knowledge which is obtainable in the two month's course given in this hospital."

To bring her vision closer to reality, she had printed and distributed a prospectus that told of the unusual opportunities for learning at the Infirmary. The effort knew a measure of success, for the following year the school enrolled 69 pupil nurses from affiliated hospitals — Massachusetts General Hospital, Melrose Hospital, Peter Bent Brigham Hospital, Childrens Hospital, and the Chelsea Memorial Hospital. In the postgraduate course, there were 21 nurses enrolled. Several had come from the Midwest and the West, and one from the Canadian Northwest. Diplomas had always been given to those who completed the postgraduate course; now for the first time the Infirmary issued a well-designed, dignified certificate to the affiliating students.

She put an end to the system of having volunteers give all of the lectures. It seemed wiser to her to make a small monetary expenditure and ask one physician to give all the lectures on the eye and another physician to give all the lectures on the ear, nose, and throat. She was fortunate in procuring Dr. Maud Carvill for lectures on the eye, and Dr. Philip E. Meltzer for lectures on the ear, nose, and throat. Their lectures were supplemented by clinics given by the House Officers. To render the students a greater service, and likewise to enable the students to render to the Infirmary a greater service, a full-time instructor of nursing theory was appointed. That woman was Abby Helen Denison. Miss Denison stayed with the Infirmary four years. During that time she wrote a textbook — the first textbook to be written by a member of the Infirmary nursing service — entitled *A Textbook of Eye, Ear, Nose, and Throat Nursing*.

A note on the textbook literature of eye, ear, nose, and throat nursing: The first U.S. textbook on this subject was published in 1905. The two authors were men, ophthalmic and aural surgeons. The second such textbook was published in 1910. Here a Committee on Nursing at the Manhattan Eye, Ear, and Throat Hospital was responsible. All members of the committee were men. These two textbooks were followed by two other textbooks, again written by men, who were also doctors. As near as can be determined, Abby Denison's Infirmary textbook was the first textbook on eye, ear, nose, and throat nursing to be written by a woman, who was a nurse.

1895 marked the beginning of this study, 1925 marks its end —

the first thirty years of nursing education at the Massachusetts Charitable Eye and Ear Infirmary. In her usual crisp style, Sally Johnson described the endeavor better than anyone: "The Infirmary should consider the work of the school among its major contributions to the community."

A final word on Sally Johnson: in 1927 she appointed Dorothy M. Tarbox, R.N., to the teaching staff. There are some at the Infirmary today who remember the formidable and wonderful Dorothy M.

★ 13 ★

The Time of Mary Coonahan, R.N.

In the 1895–96 Infirmary Annual Report, there is a photograph of a nurse at work in the Children's Ward. Registered nurses were then a new thing at the Infirmary and this is the first photograph of one. The nurse is young with a sober, round, pretty face. Her dark hair is drawn up, exposing her ears. The bun provides a firm perch for her school cap. True to the custom of those of her calling, on her left breast, over her heart, she wears her school pin. Her uniform is covered by a full-bib work apron. The uniform itself is striped, floor length, with long sleeves, puffed shoulders, and starched cuffs and collar. On her feet are sensible black oxfords. She is seated with three small patients near her. The Report does not provide her name, but it is guessed, by the shape of her cap, that she could be Mary Coonahan, R.N.

There are no biographical dates or facts on Mary Coonahan. Even the fact that she graduated in May 1890 from the Blockley General Hospital Nursing School, Philadelphia, cannot be confirmed. The records show that she came to the Infirmary on December 1, 1895, as one of the first pupil nurses in the modified Post-Graduate School of Nursing that had been initiated a few weeks earlier by Farrar Cobb, M.D., the Infirmary's medical Superintendent. When the four-month course was over, she stayed on to be in charge of the Aural House and its operating room and clinic. Later she was advanced to the position of Assistant Superintendent of Nurses, and on August 1, 1897, Dr. Cobb appointed her Matron and Superintendent of Nurses. In addition, she was put in charge of the School of Nursing. She resigned her position on May 31, 1923.

During the years of her service, and for some years later, the Infirmary operated as an institution, and Mary and all the other nurses and employees were in the category of institutional workers. The system was that an institution took care of its workers and to a degree directed their private lives. The workers wore the uniform of their institution, resided in quarters provided by their institution, ate their meals there, and usually could not leave the premises without permission. Wages were low. For the institutions, it was an economical system that provided a maximum of labor for a

Infirmary Nurse and young patients — 1895.

minimum of cost. One observer noted that such workers were expected to live their lives for their institutions. Marriage, children, families would certainly divide their interests and loyalties and make them less efficient and dedicated workers. The institution was their home, their fellow workers their family. In 1909, when the Infirmary built a new residence for its nurses and domestic servants, the building was named the Nurses' Home. On occasion, when Mary Coonahan as Matron and Superintendent had to dismiss an employee, she would note in the records that the employee was not suited to be a member of the Infirmary family or household.

The institutional system in hospitals had its heaviest impact on women who made up the bulk of the working force. A life career for a woman in hospital work often meant no home, no husband, no children, no family life, and little social life outside of the institution. "A spirit of willingness to endure pleasantly the unpleasant circumstances of a nurse's life had to be developed." Mary Coonahan and many, many of the nurses and employees of the Infirmary, up until less than a generation ago, were such women. They spent their entire working lives and much of their personal lives within the walls of the Massachusetts Charitable Eye and Ear Infirmary.

When the institution was a hospital, such as the Infirmary, there was a rigid hierarchical order. The domestic servants were of the lowest order, next above them came the nurses, then the House Officers, the Staff Surgeons, the Administration, and on the top of the pyramid was the Board of Managers. Everyone knew his or her place and kept it. Those working and living in the hospital had their "Occupation Uniform" to remind them should they forget. And everyone had an opinion of those above and those below. It may come as a surprise to some to learn that 75 to 80 years ago, nurses, in spite of their professional training, were regarded by many in the health care field as being a sort of superior servant. The common view was that it ". . . would be a fatal mistake to magnify a nurse's personal or official importance above her proper station in the plan of the organization." When the Superintendent of Nurses at the Massachusetts General Hospital resigned after several years of service, the hospital Trustees praised her and held her up as a shining example to the other servants of the hospital. She must have been an understanding soul, for she left the bulk of her life's savings to the Massachusetts General Hospital Training School for Nurses.

How one aspect of the institution system worked is demonstrated by the living arrangements in the "new" Infirmary, which first received patients and employees in March 1899. The new building, quite a handsome structure of four floors plus a basement, was located on the corner of Charles and Fruit Streets. On the Charles Street side of the fourth floor were 21 rooms for nurses, a room for the Head Nurse, a Nurses' Parlor, and bathroom facilities. On the Fruit Street side of the same floor was a two-room suite with a private bath for the Matron and Superintendent of Nurses — Mary Coonahan — and 12 rooms for servants plus their bathroom facilities. In the basement, in addition to storage area and laundry

and kitchen facilities, were eight rooms for male employees, a Doctors' Dining Room, a Nurses' Dining Room, and Servants' Dining Room. The maximum capacity of the house for live-in employees was 84. The cost of maintenance per employee per week was $6.30. The cost of subsistence per employee per day was 19 cents.

The arrangement of the living quarters was such as to separate the two sexes. It was forbidden for a male employee to go to the female quarters and vice versa — the culprit could know dismissal.

The rooms of the nurses were larger than those of the servants. The nurses' bathroom facilities were larger than those of the servants. The nurses had a parlor, the servants did not. The male employees had the poorest accommodations of all. Just across the hall from their quarters was the hospital morgue, a room usually occupied for the hospital death rate was higher than it is today. The Doctors' Dining Room was larger than the Nurses' Dining Room, although there were fewer doctors than nurses. The Nurses' Dining Room was larger than the Servants' Dining Room, although the two groups were almost equal in number. Incidentally, all meals were served at scheduled times by Table Girls; the cafeteria system was yet to come. In the Nurses' Dining Room and in the Servants' Dining Room, rowdy behavior and boisterous language were forbidden. Mary Coonahan enforced these rules of behavior. It is not known if any rules of deportment were in effect in the Doctors' Dining Room.

Not only in the Dining Rooms, but elsewhere in the Infirmary, the day-to-day work activities, deportment, and private lives of the Infirmary's institutional workers had to be supervised and directed by someone. That someone was the Matron and Superintendent of Nurses. The Regulations called for her particularly to see that all employees ". . . were kind and attentive to the patients, obedient to the directions of the Surgeons, and decent, moral, and sober in their deportment." The two medical Superintendents during Mary Coonahan's tenure, Dr. Farrar Cobb and Dr. Frederic A. Washburn, were "part-time," that is they were not on the premises at all times. Dr. Cobb spent a portion of his working time supervising the construction of Harvard Medical School and in private practice. Dr. Washburn served as Director of the Infirmary, as well as being Director of the Massachusetts General Hospital. This meant that for much of the time the Matron and Superintendent of Nurses, Mary Coonahan, was the senior officer present. Problems were hers to deal with, decisions were hers to

make, all according to the Infirmary Regulations. It is fortunate indeed that there is a record of some of the problems she faced and of the decisions she made.

When Mary Coonahan took on the responsibilities of the office of Matron and Superintendent of Nurses, she inherited from her predecessors three lots of ledgers: *The Attendant Nurses Records*, *The Head Nurses Reports*, and *The Post-Graduate Nurses Students' and Staff Nurses' Records*. All of the ledgers are substantially the same. In them the Superintendents of Nurses — there had been three in the two years prior to Mary — made entries for each of the Infirmary's nurses, students, and attendant nurses: name, age, school or recommendation, plus any necessary comments. Then a calendar of their work assignments and duties. Periodically, the Superintendent would evaluate each person and would enter her opinion of the person. The ledgers, over the years of 1895 through 1915, became a log of the lives and careers of every nurse, attendant, and student within the institution.

Because the ledgers were privileged and private, Mary Coonahan and the earlier Superintendents were free to write what they really thought of the employees and of the institutional life at the Infirmary. Now that 65 to 85 years have passed, the ledgers can be opened. Upon reading them, it is learned that they give, and often give generously, a clear insight into the life one could know as an employee of the Infirmary. Further, an insight is given into the personalities of the first four Infirmary Superintendents of Nurses, especially Mary Coonahan, whose tour of duty was the longest.

First, consider marriage and a career in nursing and the institutional system.

Not every woman who trained as a nurse chose to stay in the profession. Estimates of those active 10 years after receiving their diplomas range from a high of 50 percent to a low of 20 percent. Nursing schools had to keep turning out graduates to meet the demands of the hospitals. High on the list of reasons for leaving the profession was "to get married." The nurses on the staff of the Infirmary were no exception. One succeeded in marrying a doctor.

Once married, nurses learned that it was not easy to return to the profession on hospital staffs. In applying for work, they would often conceal the fact of their marriages. In her ledgers, Superintendent Coonahan had occasions to note: "It is found that since Miss A— was engaged that she is a married woman, that on her application papers she states she is single. She is allowed to remain until her reasons for stating this error can be investigated. . . . Miss

B— leaves without notice. It is understood that she had been secretly married. . . . Miss C— . . . it was found that she was married and here under her maiden name, as the truth regarding this was not told at the time she was engaged to work here, her services are not retained. . . . Miss D— . . . it is also learned that she is married and does not use her proper prefix."

Mary Coonahan was not opposed to marriage, to married women working, or to hiring married women for her nursing staff. She was too much of a woman to hold those views. She did have strong objections, however, to the failure to use the "proper prefix" and to concealing the fact of marriage when applying for work. This she regarded as "a deceit" and evidence of "an untrustworthy nature." The untrustworthy had no place on her staff.

In addition to discouraging the employment of married workers, the institutional system discouraged the normal social relations between the sexes. Many of the nurses were normal, healthy young women; many of the House Officers were normal, healthy young men. The system allowed none of them to be married. The system discouraged fraternization. And with that Mary Coonahan's troubles began and never ended.

As Mary saw it, and others agreed with her, for a nurse on duty to be overly friendly with a House Officer was to give rise to criticism of the nurse's loyalty to the hospital's regulations. Such behavior was unprofessional and undignified. Yet she was willing to bend the rule a bit. Once she noted that a 20-year-old nurse's chief fault was that she was too free in manner with the House Officers. Mary wrote ". . . this will be less noticeable as she grows older." And there was the pupil nurse who must have come to the Infirmary for a good time more than anything else. She was always more interested in things other than in her patients. She talked too much and went out with the House Officers. Mary held her peace, but was pleased to see the girl go when her four months of training were finished. No job was offered to her. Mary could be severe, if the incident warranted it: ". . . Miss E— is discharged. She was found romping with a House Officer two nights ago and was severely reprimanded and told she was not to be trusted and would be watched. After 48 hours she resented the constant supervision and was discharged."

House Officers could be a problem to Coonahan and her nurses in other ways. Here is a tale of pettiness she was forced to record.

A certain Miss F— was night Superintendent of Nurses. She was reliable and very faithful in her care of the patients. Dr. A—, a

certain House Officer, was grossly rude to Miss F— while she was in discharge of her duties. Reprimands or discourteous treatment of nurses was not permitted in the Infirmary. Final differences between House Officers and nurses, or the Superintendent of Nurses, had to be referred to Dr. Cobb, the Superintendent. Nurse F— reported Dr. A— for his discourteous treatment. Dr. A— took this badly and set out to deliberately spy on Miss F— with the hope of finding her in some fault. One night, with this in mind while prowling the corridors when he was off duty, he found her asleep in one of the beds in the Childrens Ward. He had succeeded in his purpose and he hastened to tell his tale. Miss F— admitted that she did go to sleep while on duty, that she had told the night nurse where she was, and that she had felt so ill that it was a question of going off duty or lying down. Miss Coonahan and Dr. Cobb thought it best that Miss F— should take her annual vacation and get a month's rest. When the month was up, Miss F— wrote that she had been ill most of the time and she was unable to return. Dr. A— completed his residency and in time joined the Infirmary Surgical Staff.

As a rule, sleeping while on duty was a cardinal sin. Let the night Superintendent find a nurse sleeping soundly on a patient's bed with the door shut, and that was the end of that nurse. Nurses on night duty were expected to spend their days sleeping; if they did not, they were reprimanded. Day duty nurses, when they went to bed, were expected to stay in bed, and not go off to rooms of other nurses after the lights were out and stay up very late. For a time Mary suspected that Miss G—, instead of going to bed as she should, was staying out at night and coming into the Home by some trick, and should this fail, staying out all night. Before legal proof of this could be obtained, Miss G— refused to go to a lecture on the plea that it was not a subject concerning her work, and Mary fired her.

If a House Officer, by virtue of his superior position, could cause a nurse to leave the Infirmary, so a nurse, by virtue of her superior position, could cause a servant to leave. Sometime in 1910, a nurse and a servant had a set-to. Neither was blameless, but the maid was the greater offender. The nurse was told that if she desired it, the maid would be discharged, or if an apology was given, all would be ended. The maid was one with long service and a good reputation in the house. The nurse chose to accept the apology and seemed to be perfectly satisfied and in good spirits, but in a few hours she was weeping and "much wrought" and said the maid

made her nervous and she could not stand the annoyance. With that she resigned. Mary Coonahan's comment on the matter was that the nurse had been a fair attendant, but that she lacked self-control, common sense, and good judgement in the affair.

The relations between the sexes was only one deportment problem Superintendent Coonahan faced. Her nurses, on duty and off duty, were expected to maintain a high pattern of decorum consistent with the dignity of their calling and the reputation of the institution that employed them. When an Infirmary nurse was seen in a neighborhood public house to which it was not considered wise for a nurse to go, her services were terminated. Another nurse, who attended motion picture houses in a rough part of the town, was warned that unless she used better judgement and common sense regarding her associates and places of amusement, she would be discharged. It was suspected that Miss H— was going out with some persons who were not desirable and who were causing her to be distracted from her work. She was put on night duty as punishment. Even an excellent and trustworthy nurse could be discharged if she was found under the influence of a stimulant. Mary Coonahan had to make the hard decisions in such instances. She tried to be fair, not to take gossip for fact. A case in point: A nurse injured her eye and was suspected of being under the influence of some drug or stimulant, but no proof was obtained. She was continued on duty. Later, when she was found under the influence of whiskey, she was discharged.

And then there was the problem of discipline and the rules of the house. Mary had to grapple with this in all its forms. An example: It was suspected that one of the nurses was unduly familiar with friends and relatives of patients. The suspicion changed to positive knowledge when she was found in the front hall amid a crowd of patients and visitors, acting very freely with one of them. The nurse was breaking a rule by coming to the front hall while off duty and in her uniform. It was necessary to discharge. Another nurse was discharged for punishing a child, not that the punishment was excessive, or that it was uncalled for, but she was breaking a rule by so treating a child and had to leave. And the sin of sins: Miss I— put the wrong medicine in a patient's eye; while no harm resulted, she was discharged on account of carelessness.

Today nursing can be a hazardous profession. Seventy-five or more years ago, it was a dangerous profession. During the first four decades of the history of Boston City Hospital, twenty-four female nurses died on duty. Some of the young women had served

the hospital as little as three months or six months. The big killers were typhoid fever, diphtheria, and pneumonia. In 1897, the first year Mary Coonahan was Superintendent of Nurses, the Infirmary knew two epidemics of diphtheria. In 1906 there was an epidemic of typhoid fever among the servants. During the 1918–19 influenza epidemic, fully half of the nurses were down with the disease. The records tell of one death in the house. In 1903 a 26-year-old nurse attendant died of pneumonia, after having been on the staff one month.

When the new Gardner Building was opened in 1899, all infectious disease cases were transferred there for isolation. This lessened the chance of the spread of infectious diseases among the rest of the hospital population and the nursing staff, but it placed the Gardner nursing staff in a vulnerable position. In that building, in spite of all precautions, nurses would develop erysipelas, acute ear infections, scarlet fever, mumps, measles, typhoid fever, mastoiditis, and diphtheria. Infected fingers were common, especially among those nurses who would not wear rubber gloves while on duty. One nurse, who sinned twice in this respect, was discharged. A most tragic case was that of Miss J— who went on duty as a nurse attendant in Gardner III on February 27, 1904. The following July Miss J— left the Infirmary. Mary Coonahan's entry on her ends with these words: ". . . off duty since March 3, 1904 having infected her eye and later losing it. Her place in the Infirmary was held for her and work would have been given as long as she wished to stay, but she wishes to enter a training school, and will not take a position until then."

There was no place on the Infirmary nursing staff for weaklings. The job was demanding physically and emotionally. The hours were long. It was not until 1941 that the duty of day nurses was cut from 57 hours a week to 51 hours a week, and the duty of night nurses was cut from 54 hours a week to 48 hours a week. Most of the nurses needed their one month vacation each year. For some this was not enough. They would write to Mary that they could not return because they "did not feel strong enough to continue the work" or "my father thinks I am not strong enough for the work." Mary would note that a certain nurse "lacked the stamina for hospital work," that another found the "work so hard that she was breaking down," and a third, "the work is more difficult than she can stand." One occupational hazard was that of pododynia, a painful affliction of the feet peculiar to nurses. A journal article was written on the subject following the examination of the

feet of 500 Boston nurses. When an Infirmary nurse so suffered, she might be sent to the Massachusetts General Hospital for treatment.

Among those taken in for training in the early years of the Nurse Attendant Program were three female medical students. On the whole their work record was good, although two of them commented when they left that they had found nurse's work too hard for medical students.

During the weeks and months the pupil nurses and the nurse attendants were in the house for training, Miss Coonahan came to know some of them and their personal problems. When it came time for her to evaluate these students at the end of the course or of the probationary period, she might allow her knowledge to sway her judgement. There was a young Irish girl who gave no promise of proving capable of doing the work, but she was given another chance as she appeared badly in need of work. Another girl, who had been seriously ill while on duty, was advised to leave the profession. Then the girl gave a history of having to work hard all of her life, and having no place where she could stay unless she did all the housework, including the washing, for a large family. As this was known to be true, she was permitted to stay on, as it was thought she would thus have a fairer chance to recover. Two other girls were in need of help, and the opportunity to make a living was given to them. Miss K— was continued on to keep her from going to questionable places with persons who were considered undesirable. She was warned, however, that unless she reformed in this lack of judgement, she would be immediately discharged. Mary's compassionate nature is demonstrated by this entry: ". . . she is homeless, apparently untrained, and the opportunity was given her to make a place for herself, a place where she could develop."

Mary's good heart could get her into trouble. Twenty-one year old Miss L— was accepted for the Nurse Attendant Program. At the end of her first month of probation, it was found she had trouble with her feet and her physician said she had had "some heart trouble." There was a question in Mary's mind if Miss L— would be able to do hospital work, but as the girl seemed to be a desirable person and needed the work badly, a second month's probation was given. Within weeks Miss L—'s health improved. The good food and proper way of life the Infirmary afforded, the less laborious work, had put her in good condition. The year passed with

favorable and unfavorable comments entered on her records. Miss L— began her second year with a fair rating by Superintendent Coonahan. But, before many weeks passed, the records show that Miss L— was causing annoyance by being out late at night in violation of the rules of the Nurses' Home. She frequented restaurants, the sort she considered it wise not to tell the Superintendent about. And then it was learned she was opening the doors of the Home to allow nurses in without late permission. All this Mary bore with a degree of patience. The end came when Miss L— refused to report for night duty "because she had a theatre engagement." Now the grave suspicion that Miss L— was not a desirable member of the Infirmary household became a fact. She was discharged at once.

Institutional life, by its very nature, gave rise to gossip and chatter, things Mary Coonahan could not abide. Time and again she would comment on some nurse or student: "greatest fault is persistent gossiping, . . . cannot refrain from indecent speech, . . . gossiping too much, . . . she is too chatty, . . . makes unnecessary and tactless criticism of the servants, . . . shows a lack of professional dignity and has too much freedom of speech." And then this cryptic entry: "Miss M— leaves after bringing charges of immorality against two of the attendants but refuses to give names."

Mary Coonahan tried for perfection in her professional life; she attempted to find it in her subordinates. Every woman on her staff was expected to have poise and dignity, a manner of professional courtesy and bearing. Untidiness, lack of order, slovenliness in uniform were not tolerated. Orders were to be given in a businesslike way, orders were to be obeyed willingly, reprimands were to be received without impertinence. Should a Surgeon, House Officer, or even a substitute House Officer complain that a nurse's work was poor, the expected and dignified professional course for the nurse to follow was to resign. Faults of youth would be tolerated as long as there were not too many of them. Once on duty a nurse was expected to stay at her station and not desert it to visit with other nurses. Always a nurse was expected to maintain the dignity of her position with House Officers, other nurses, and servants. In hospital etiquette, her manner should not lack professional ideals and requirements. Above all, every nurse had to have a loyalty to hospital authorities and concern for the dignity and comfort of others on the Infirmary staff, regardless of their position.

Dignity, however, could be carried too far. Mary noted that one

nurse was "so insistent on the dignity of a graduate nurse that she was useless when ordinary details were necessary to be done," and that another "did not feel that a graduate nurse should put the O R in order." The two were asked to resign.

A nurse could fail Mary and the profession in other ways. She could be too sensitive, she could allow her personal feelings to enter her professional life. It was not right for her to spend so much time in caring for patients that the discipline and the manual labor of the ward were not brought to the proper condition. A head nurse could not desire to be too kind and helpful to her subordinate nurses, so that discipline among them was not maintained and that the work was not done. Always a nurse had to have her emotions under control; there could be no weeping on the job, no tears when corrected.

There must have been times when Mary herself felt like weeping. The demands of hospital work became too much for one nurse who was extremely heavy and unable to be on her feet without tiring and was slow in moving. Mary was compelled to discharge her. And, there were at least three cases of nurses who had gradually lost their hearing and were unable to do the work. One of the nurses had become deaf following a bilateral chronic ear disease she had acquired while on the Infirmary payroll. The Aural Surgeons knew no success treating these three cases. It was Mary's task to discharge the women.

During Mary Coonahan's tenure, only a few nurses were discharged; many left of their own free will and for a variety of reasons. There were those who just did not like the place, those who found "things" not entirely satisfactory. Many, many nurses said they could not work for the small wages the Infirmary paid. Some desired privacy, a room of their own; when one was not assigned to them, they quit. Night work or isolation room work were not for every nurse. The cares and responsibilities were often too much. On occasion, the demands made by a head nurse would be harsh and unreasonable. They would leave to go into private duty, to go to a training school, to another hospital, or to be a head nurse elsewhere. At least three nurses went west to better themselves. One left to do medical missionary work in the Philippine Islands. Another left to go abroad, and another to travel for pleasure and experience. Death in the family, sickness in the family, family business, "homesickness," the need to rest and to be away from hospital work for a time, and personal sickness were reasons given for terminating service. And there was always marriage. Not every-

The Nurses' Home — 1909.

one gave Mary Coonahan a reason for their record in the ledgers; they would just not report back for duty at the end of their vacation period. One young woman, Miss N—, left without notice and without finishing her contract. She got her salary on payday and left without reporting to anyone. It was found that her clothing and effects had been removed from the Nurses' Home surreptiously.

As much as the income would allow, the Managers made efforts to make the off-duty life of the nurses as pleasant as possible. In 1908 it was voted to tear down the old 1850 building and the two adjoining dwellings that had once been the Aural Department and erect on the property a nurses and domestics building. The plans also called for the nurses and domestics quarters on the fourth floor of the "new" Infirmary to be altered to provide beds for 50 additional patients. The Nurses' Home was occupied by the servants and nurses on August 1, 1909. It was a building of red brick with white stone facings, four stories high, and with two wings, each

with its own front entrance. Standing on the corner of Charles and Cambridge Streets, overlooking the Charles River Basin and the new boulevard, it was an admirable addition to the neighborhood. The cost was $98,097.77.

The building was large enough to properly house about one hundred nurses and domestics. Each single room had a three-drawer dresser with a mirror, a straight chair and a rocking chair of matching wood, a wall desk with book shelves, a bed of the hospital cot type, a closet, and an assortment of pictures on the wall and scatter rugs on the floor. Bathroom facilities were shared. The pride of the building was the parlor, a large room that extended almost the whole length of the boulevard side. In the room were sofas, easy chairs, and potted palms. The hardwood floor was covered in part by attractive rugs. And there was a large fireplace with quite a handsome mantel and mantelpiece. Mary and her workers appreciated the ". . . various comforts of the Nurses' Home, including the joy of the view from the windows." The Managers must have been proud of the structure: For ten years their Annual Reports carried photographs of it.

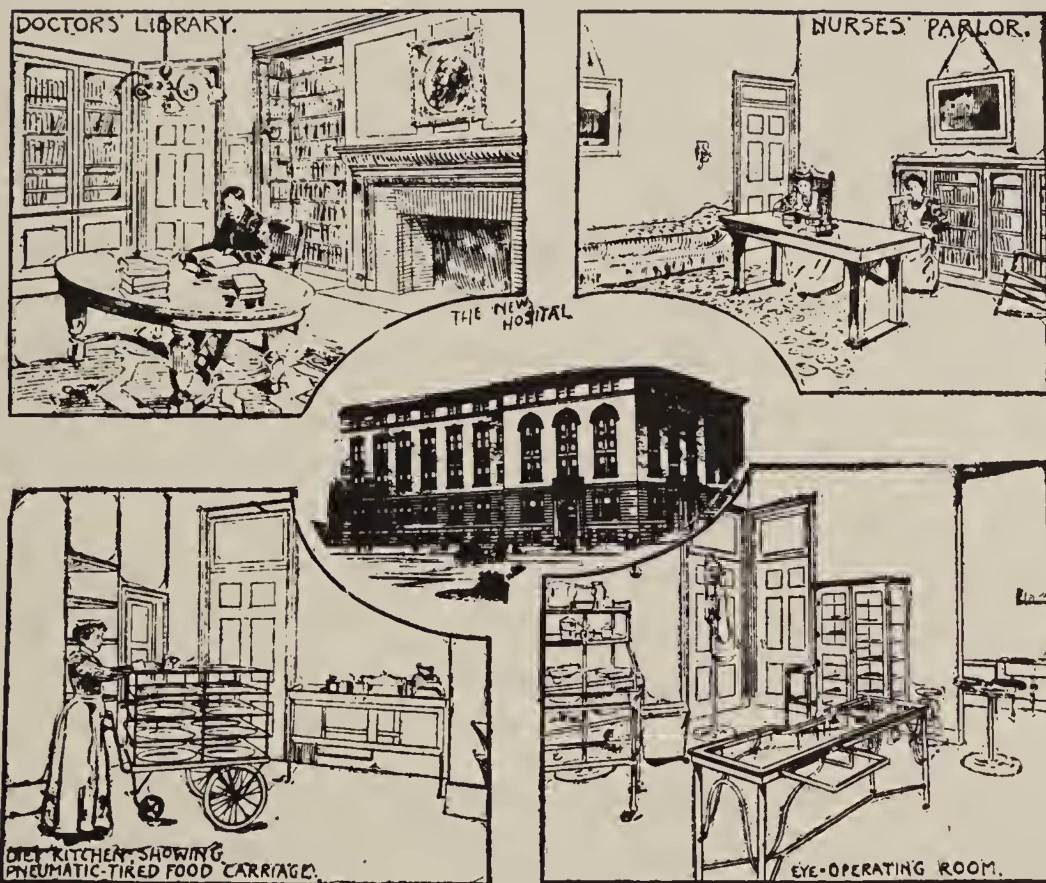
Life may have been pleasant in the Nurses' Home prior to World War I. All the comforts and many of the luxuries of good living were there. A new Edison Victrola was installed and was a source of much pleasure. Current magazines and books were in the library. There were card parties; a wood fire burned in the fireplace. Each week a professional instructor came to the Home and taught the nurses the latest dance steps. Gifts of fresh flowers came regularly, and from time to time there were gifts of tickets to concerts and art shows. In 1915 the Superintendent, Frederic A. Washburn, M.D., a real tennis buff, had a tennis court built on the grounds for the use of the nurses and House Officers.

The last paragraph of Mary Coonahan's 1916 report reads: "The general health of the nurses has been excellent, no nurse has been seriously ill, and minor illnesses have been less than usual. The greater number have shown a marked improvement while here; a group of ten selected at random showed an average gain in weight of five pounds in ten weeks."

The beginning of 1916 brought an end to the ledger system of keeping the records of the personnel of the Infirmary Nursing Service and the Nursing Education Program. After that date card files were used. These have not survived. Thus there are no records of institutional life at the Infirmary and this study must end. With one important exception, all later information on Mary Coonahan

MODEL EYE AND EAR INFIRMARY.

New Building on Charles St Will be Opened Today and Will be Inspected by Gov Wolcott.



Newspaper announcement of the opening of the "New Infirmary" in March, 1899.

and her service to the Infirmary is in the Minutes Books of the Managers and the Executive Committee, and in the Annual Reports.

The close of 1920 found Mary tired and ill. The Executive Committee granted her a year's leave of absence. It is thought she drew her salary for the period. She spent the spring and early summer months of 1921 traveling to Pennsylvania, Puerto Rico, Canada, and other places of interest. Then in 1922, she returned to her post, but the tasks she had always done with pride and dignity were now too much for her. On February 12, 1923, she submitted her resignation as Superintendent of Nurses of the Massachusetts Charitable Eye and Ear Infirmary. It was to be effective May 31, 1923. To her profession and to the Infirmary she had given 33 years of loyal and faithful service, her best years, her most productive years. It is believed that she was 52 years old when she resigned.

The best summary of Mary Coonahan, R.N., and her work is provided by Sally Johnson, R.N., who succeeded her as Superintendent of Nurses. Sally wrote: "No other woman in the country has as much knowledge of the nursing care of patients suffering from diseases of the Eye, Ear, Nose, and Throat as Miss Coonahan has acquired during her connection with this hospital. Not only does she possess this knowledge, but she has the power of imparting it to others. Successors to Miss Coonahan may come and go, but none will probably ever possess the qualifications which she has for teaching at the Infirmary."

The Superintendent, the Managers, and the Surgeons spoke warmly and kindly of Mary, and expressed the wish that freed from the burdens and detail of responsibility of hospital work she would know many years of comfort, health, and happiness. The Managers voted: "That there be allowed and paid to Miss Coonahan the sum of $20.00 per month during her life."

On her last day of duty as Superintendent of Nurses, Miss Mary Coonahan, R.N., wrote these words in the Infirmary Record of Nurses, her last entry in the ledgers:

May 31, 1923 — Miss Coonahan resigned. During her service the new Infirmary was built and occupied, increasing from 60 to 214 beds. The Nurses Home built. The Infirmary being the largest and best known Eye and Ear Hospital in the country.

Then two words from the Roman Catholic Mass:

Sursum corda! — Lift up your hearts.

With that farewell, the time of Mary Coonahan, R.N., came to an end at the Infirmary. Nothing more is known of her, where she went, what she did, how many years of comfort, health, and happiness she knew.

★ 14 ★

Finances

The Infirmary and the Commonwealth, 1824–77

Your committee think the bounty of the Commonwealth was well bestowed, in aiding this institution, and they believe it has been judiciously and humanely administered. From the high character and philanthropy of those concerned in its government, and the skill, science, and professional eminence of the gentlemen engaged in its superintendence and interested in its success, the public have the best assurance that it will continue to deserve their approbation and that its high and humane objects will be accomplished.

Senate . . . . No. 102 Report, &tc. concerning The Eye and Ear Infirmary, Commonwealth of Massachusetts, In Senate, April 19, 1838.

. . . in the case of the Infirmary the state had been in the habit of referring affections of the eye to its care and thus avoided the necessity of establishing a state hospital for such a purpose. It was one of the few privately administered charitable institutions which received annual appropriations from the Legislature.

Churchill, Edward D. (editor). *To Work in the Vineyard of Surgery. The Reminiscences of J. Collins Warren (1842–1927).* Cambridge: Harvard University Press, 1958. p. 201.

This study will concern itself with matters of finance and law, with income and expenditures, with investments and buildings, and with treasurers and their trust. Much of the information is drawn from the reports and papers of J. Wiley Edmands, who served as the Treasurer of the Massachusetts Charitable Eye and Ear Infirmary from November 30, 1835 until his death in 1877. Mr. Edmands's carefully kept records are in the Infirmary Archives. Lacking similar detailed information from later Treasurers, this study ends with the last day of Mr. Edmands's tenure.

Accordingly, on the first of October, 1824, Dr. Edward Reynolds in conjunction with Dr. John Jeffries, hired a room in Scollay's Buildings; fitted it with such conveniences as their limited means enabled them to procure; and invited the poor afflicted with diseases of the eye to come there for gratuitous aid.

So began the Boston Eye Infirmary, the private charity of Reynolds and Jeffries. The hire of the room for one quarter was $25 plus $2.80 for property taxes. In those days the tenant was informed of the amount of the taxes on the space he rented and he paid it along with the rent to the landlord. Of conveniences, the cost of drugs and instruments was $36.09 for the last quarter of 1824. The receipt for the rent of the room signed by an agent of Mrs. William Scollay, the owner of Scollay's Buildings; and the invoice of John Bacon, chemist, for the drugs and instruments have been preserved. They are two of the oldest documents in the Infirmary Archives.

For 15 months — October 1824 through December 1825 — Reynolds and Jeffries met all the expenses incurred in operating the Boston Eye Infirmary from their own pockets. There are no exact financial records of the period, but using the figures above, it can be estimated that the rent and taxes were $139 and the cost of drugs and instruments was $180 — total $319. Add to this a guess figure of $31 for the board of patients and the final figure becomes $350 — an estimated average of $23.33 a month.

The two founders had been willing to spend their money to test their belief that there was a need in Boston for an eye health care charity. They had treated a total of 859 patients in the 15-month period and had done it quite economically — perhaps at a cost as little as 40 cents per patient. They presented their figures and their convictions to a group of charity-minded Bostonians who met in the Exchange Coffee House on Thursday Evening, December 29, 1825. The gentlemen were impressed and agreed to pledge themselves financially to be responsible for the future of the Boston Eye Infirmary and to manage its affairs. As a committee they set out to collect subscriptions. It was voted that the payment of $40 or a larger sum would constitute a life membership in the Infirmary. The payment of a $5 annual subscription would give membership for the year in which the payment was made. When 50 subscribers had been obtained, or sooner, the subscribers would meet and proceed to elect officers and organize the affairs of the Infirmary.

Success came quickly to the Committee. By March 20, 1826, pledges and subscriptions totaling $3,345.65 had been secured. Three

men in Boston, Peter C. Brooks, Abbott Lawrence, and Amos Lawrence, had found the idea of an eye and ear hospital particularly attractive, for they had pledged $100 each for a life membership whose suggested fee was $40. The number of subscribers totaled 60.

The organization of what was to be denominated the Massachusetts Charitable Eye and Ear Infirmary was held on March 20, 1826. The officers were elected and the by-laws written. Bryant P. Tilden, who had been Chairman of the Committee, was elected Treasurer. As that officer, he was given custody of all of the funded property and all the documents and papers related to the property. With the advice of the Standing Committee, he was to prudently invest the funds of the institution. When it came time to pay bills, he needed the approval of the Standing Committee. He could employ a person to collect the annual subscriptions and other debts of the Infirmary. Each year his accounts were to be audited by a special committee. He was bonded for $4,000.

A month later the Standing Committee held its first regular meeting. It was voted that all orders on the Treasurer for the investment of the Infirmary's funds and for the payment of money needed the sanction of two or more members of the Standing Committee in regular meeting. Such votes then went to the Secretary and the President before the Treasurer could act. The first order for an investment directed the Treasurer ". . . to loan five Hundred dollars, on the 5th of May, next, for one year with legal interest payable half yearly, on security of five shares of the United States Bank." He was further directed ". . . to loan One Thousand dollars on the 26th of June, next, for one year with legal interest, payable half yearly on security of ten shares in the Bank of the United States." These were the first investments made by the Infirmary.

Here, mention must be made of a most important by-law. It read: "All subscriptions and donations other than annual subscriptions, shall be made a permanent fund & the income only applied to current expenses." This meant that the Managers planned to balance the Infirmary's budget from two sources — the income from the invested funds and the annual $5 subscriptions.

With such a financial base, the Standing Committee felt it proper for the Infirmary to move out of the one room in Scollay's Buildings. They authorized the Surgeons, Reynolds and Jeffries, to find suitable quarters and to sign a lease for five years. Two rooms were selected on the third floor above the cellar in a building at the

corner of Court Street and Common Street. The rent was $200 a year plus taxes. To equip the enlarged quarters for the care of the patients, drugs and supplies were bought from John Bacon for $61.60, 12 chairs came from Gridley and Blake for $10.50, mops and brooms from A. Painter for $2.09, and carpeting from Ballard & Prince for $19.95. Among the many invoices paid at this time by Treasurer Tilden was this one:

	Mass. Char. Eye & Ear Infirmary	
May 1, 1826		*To John Loring. . Dr.*
	2 grs. Foolscap	*75*
	1 bunch Quills	*25*
	1 Ink Stand	*100*
	Bottle Ink	*25*
	Sand Box with Sand	*27 1/2*
		2.62 1/2

Bryant P. Tilden remained Treasurer of the Infirmary until December 6, 1826, when he resigned to be succeeded by James C. Dunn. One of the most important directed investments to be made by the new Treasurer was the purchase on June 16, 1827, of policies of annuity totaling $1,500 in the Massachusetts Hospital Life Insurance Company. In 1814 a charter to grant annuities on lives had been given to the Massachusetts Hospital Life Insurance Company. In the charter, a proviso was inserted that called for one-third of the company's whole net profits from insurance on lives be made payable to the Massachusetts General Hospital. An additional act passed on January 17, 1824, sanctioned a most important agreement between the two corporations, by which the Massachusetts General Hospital, in lieu of all former rights, became entitled to all earnings of the Insurance Company over and above 6%. Bowditch wrote in his 1851 history of the Massachusetts General Hospital: "Now this insurance Company has a capital of $500,000; and the chief branch of its business is the management of property with it in trust, and for which a charge is made of 1/2% commission. The regular annual dividends have been 9% — say 8% to the stockholders, and 1% to the Hospital." By 1850 the Massachusetts General Hospital had received $150,687 from the Massachusetts Hospital Life Insurance Company.

At the meeting when James C. Dunn was elected Treasurer, it was voted to seek a charter from the Commonwealth to incor-

porate. A committee was appointed and it did its task. On February 23, 1827, the Act of Incorporation was signed by the Governor. Specific to the subject of finances was this one passage: ". . . it is licensed and impowered to make purchases, and to receive grants, devises, and donations of real estate to an amount not exceeding Thirty Thousand dollars and personal estate to an amount not exceeding Seventy Thousand dollars." This meant that the total worth of the charity could not exceed $100,000. The Commonwealth and the City of Boston refused to give financial aid to the Infirmary. The Managers had to operate the institution with the income of the invested funds and the annual subscriptions.

The office of Infirmary Treasurer must have been a trying one. The first, Bryant P. Tilden, served nine months and then resigned. The second, James C. Dunn, served ten months and then resigned. He left his successor, William T. Andrews, the task of telling the Subscribers at their October 29, 1828, Annual Meeting the facts of the unhappy state of the Infirmary's finances. Part of that story has been narrated elsewhere in this book. Here are the figures of the investments and income for the fiscal year of 1827–28. The Infirmary held $1,500 in annuity policies with the Massachusetts Hospital Life Insurance Company. These had given an income of $37.91. A note and mortgage of Elisha Hunt for $800 had yielded $48. The annual subscriptions totaled $247.28. Income for the fiscal year of 1827–28 — $333.19, Expenditures — $376.76, Overrun — $43.57.

In a plea for funds that went out to the public shortly after this meeting, the Surgeons and Managers emphasized that the Infirmary was "Supported by private Contributions." "The funds have been so small that every expense had been avoided which was practicable." "The Institution labored under very great disadvantages the past year." "The small sum of money voted by the directors for the board of patients could not be supplied and it was determined to receive no more patients to board at its expense." These words and others used to describe the embarrassed state of the Infirmary's treasury were productive in bringing in enough money to tide the Infirmary over a difficult period.

The by-law that called for all subscriptions and donations other than annual subscriptions to be invested in a permanent fund and that only the income could be applied to current expenses was both good and bad. It was bad because it did not allow the Managers to use the money in an emergency situation, such as 1827–28. It was good in that it created a fund that was a "magnet" for bequests

that soon came. The first was the Jeremiah Belknap bequest of $1,000 in 1830. A year later his sister Mary bequeathed $1,000, and some time later his second sister Sarah bequeathed $1,500. The Belknap bequests were used to buy shares in the Massachusetts Hospital Life Insurance Company. By 1833 the Infirmary had invested $5,100 in this company, its only investment other than the Elisha North mortgage for $800. It is sad to note that as the bequests began to come in, the number of annual Subscribers declined — only $40 was subscribed in 1833.

At the 1834 Annual Meeting, the Treasurer announced the net worth of the Infirmary to be $6,271.19. A year later the figure was $15,814.64. This increase was brought about by the energetic efforts of Joseph P. Bradlee and his building fund committee. William T. Andrews chose this happy moment to resign as Treasurer. He had served eight years. The Managers had difficulties in filling the post. First, they elected Thomas W. Phillips. He refused the office. Then they elected William T. Eustis. He too refused. Then on November 30, 1835, they made a wise, and as the future would prove, a long-lived choice in John Wiley Edmands.

In the spring of 1836, Bradlee and his group were given the power to buy the Parkman mansion house on Green and Pitts Streets for $20,000. Treasurer Edmands was directed to pay between $8,000 and $12,000 for the house and he was ". . . further authorized upon receiving a deed to said land to mortgage the same as security for the payment of the balance of the purchase money and to sign a mortgage deed in the name of the Infirmary; and to give a promissary note for said balance upon such terms as he shall judge best in the interests of the Infirmary." The mortgage note was for $11,000. Edward Reynolds described the transaction as being one ". . . on terms so liberal, as to be considered equivalent to a valuable donation from the heirs of the late Samuel Parkman." On November 1, 1836, the key to the house on Green Street passed from the Parkmans to the Managers of the Infirmary. Now the Infirmary had its own house, complete with a mortgage.

Purchasing the badly needed quarters drained the Infirmary of much of its resources. There was not enough money to renovate the house and to equip it to treat patients. Ten years had passed since the Infirmary had been incorporated, and ten years had passed since the Commonwealth had rejected the petition for financial assistance. It was time to try again. The record was good. The Managers had followed ". . . a determination to adhere strictly to

their early resolution to keep the Institution under all circumstances, free from pecuniary embarrassment." In this they had succeeded. The only debt was the $11,000 mortgage on the Green Street house. At the time they filed the petition in the last months of 1836, the sick-poor from 153 towns in the Commonwealth had been treated in the clinic. One-third of the applicants had come from country districts.

The petition went to the House and Senate Joint Committee on Public Charitable Institutions. That august body did not bestow the Commonwealth's money carelessly. A subcommittee of four was sent to investigate the Infirmary — the quality of its administration, its surgeons and their activities, the assets, the property, and the record of service. One of the investigators was Dr. Jerome Van Crowninshield Smith, editor of the *Boston Medical & Surgical Journal* and an author of journal articles on diseases of the eye. When their visits were complete, and they made more visits than one, "The gentlemen expressed in the fullest manner their entire conviction of the high value of the Institution, & their determination, in their report, & by their personal exertions to promote its interests." Subsequently, the Infirmary was visited on several occasions by members of the House of Representatives, all of whom were interested in its operations.

It was a day in May 1837 when Treasurer J. Wiley Edmands went to the State House and collected two sums of money. The first was $5,000 to be used to alter, repair, and furnish the house. The second sum was $2,000 to be used to meet the current expenses of the Infirmary for the year. There would be like sums for current expenses for four years more. The Commonwealth had judged the Infirmary to be a worthy public charity, and a total of $15,000 of public monies had been voted to support its endeavors.

The house was remodeled, sheds were built. Then an arsonist struck; it was necessary to begin again, using money obtained in a settlement from an insurance company. On July 19, 1837, the work was complete and the first house patient admitted. The amount expended in repairs and alterations was about $2,100, and for furniture and the like about $1,100. In the spring of 1838, the Joint Committee on Public Charitable Institutions visited the Infirmary to see how wisely the public monies they had voted had been spent. The report they wrote was so glowing that the Managers asked and received permission to print and distribute copies of it to promote the interests of the Infirmary.

Here is Edmands's Treasurer's report for 1838:

TREASURER'S REPORT
OCTOBER 30, 1838

Policies in Life Insurance	*$ 6,700*	*Notes*
Real Estate, Green Street	*22,149.14*	*Payable*
In hands of A. & A. Lawrence & Co.	*2,224.57*	*$11,000*
Cash	*5.83*	
	$31,079.68	

The expenses for the year — $1,850.50
Subscribers contributions — $108.00

By the end of 1838, the Payne bequest of $10,000 allowed the Infirmary to pay off its mortgage and to be debt free.

At the time the Managers voted to apply to the Legislature for financial assistance, they also voted to apply to the Massachusetts Charitable Fire Society. This organization, described as being a primitive kind of mutual fire insurance company, had found itself with considerable surplus funds and had received permission from the state to spend its money in other ways. In 1832 they had made a donation to the newly founded Boston Lying-In Hospital. The company said no to the Infirmary in 1836, and they said no to a second request made in 1839.

The third line of the Edmands's 1838 Treasurer's Report given above reads: "In the hands of A. & A. Lawrence & Co." This company was that of Amos and Abbott Lawrence and their associates who did business as merchant bankers. It was the custom of the time for investors to deposit money with such firms and to rely on the probity of the firm's members to make sound investments with the highest return possible. Both Amos and Abbott Lawrence had been among the first subscribers of the Infirmary—$100 memberships. In time Abbott Lawrence joined the Board of Managers. He was regular in his attendance of meetings, and it is recorded that at times he gave "addresses." The Infirmary deposited funds with A. & A. Lawrence until 1844, when the practice of buying bank stocks was adoped. The Managers were always prudent in making this new sort of investment. Stock was bought not in one bank, but in three or more.

To repeat, Article 3 of the original by-laws of the Infirmary read: "All subscriptions & donations other than annual subscriptions,

shall be made a permanent fund & the income only applied to current expenses." New by-laws were adopted on February 10, 1849, and this article was not among them. From that date on, unless specifically directed by the terms of the bequest or donation to do otherwise, the Managers were free to use the gifts in any way they saw fit consistent with the best interest of the Infirmary. This change in the by-laws did not alter the regard the Infirmary knew in the minds of benevolent and charity-minded Bostonians. Gifts, donations, and bequests became abundant during the decade of 1840–50: Samuel Appleton — $1,000, Peter C. Brooks — $1,000, John Bromfield — $10,000, J. P. Cushing — $1,100, Gustavus Glosser — $1,000, Moses Grant — $1,000, Abbott Lawrence — $1,100, Israel Munson — $3,100, John Parker — $5,000, William Sturgis — $1,100, and Daniel Waldo — $6,100. These were the large gifts. The number of small donations were at least triple in number. Some of the money, if directed, went into the permanent fund; some into current expenses; and some into the "new building" fund that had been initiated in 1845.

In being the recipient of large gifts and legacies, the Infirmary was part of a pattern that was taking shape in Boston. Some of the city's dwellers had become quite affluent. In keeping with their Calvinist background, the fortunate ones felt it proper that they should share what they had acquired with their less fortunate brethren. Outside of the churches, prior to 1850 there were not too many well-operated charities that could attract such money. The Massachusetts General Hospital, the Boston Dispensary, the Boston Lying-In Hospital, and the Infirmary led the health care field. The three Belknaps had given a total of $3,500 to the Infirmary; to the Massachusetts General Hospital they gave a sum just under $90,000, and to the Boston Dispensary $1,000. Israel Munson gave $3,100 to the Infirmary and $20,000 to the General. John Williams gave $13,000 to the General and $250 to the Infirmary. And John Bromfield gave $40,000 to the General and $10,000 to the Infirmary.

A word on subscriptions: At the Annual Meeting of October 27, 1842, it was voted: "That the Treasurer be requested to suspend for the present the usual demand for subscription money upon the annual subscribers to the Institution. The funds from other sources being considered sufficient for the present necessities."

Beginning in 1842, the Infirmary knew income from its permanent funds, from annual gifts and donations, from the $2,000 annual appropriation from the state, and from the fees paid by

house patients. As to this last item, ". . . it was found that the cost of each house patient was about $1.50 a week. It was decided that each patient who paid $3.00 a week, paid his own cost plus the cost of another and thus was not encroaching upon the funds of the Institution." In 1838 there were 28 patients paying this low fee, and the Infirmary knew $337.68 in revenue.

The Commonwealth had agreed to support the charity of the Infirmary with an annual grant of $2,000 for five years. This began in 1837 and continued until September 30, 1842. Just prior to this last date, the Managers petitioned the Legislature for a renewal. A visit was made to the hospital by the Joint Committee on Public Charitable Institutions, a report written, and the grant was renewed for five years until September 30, 1847.

The records do not tell us just what the income from the invested funds was for the fiscal year of 1842–43. Here is the Treasurer's report for that period —

Policies of Annuity	*$ 6,700.00*
Real Estate, Green Street	*22,149.34*
Cash	*116.17*
A. & A. Lawrence, on deposit	*4,570.23*
	$33,475.74

By the close of 1845, thanks to bequests, this last figure had increased to $49,479.38. The decision was made to build a new building.

The Green Street house had been satisfactory as a hospital for only a few years. By 1841 the number of patients seeking assistance began to increase in a progressive ratio, so that by 1845 they had doubled. The house became too small to accommodate the crowds that sought its shelter. The domestic arrangements were inconvenient, spaces for patients and medical and domestic attendants were too few in number. Lacking were all the modern contrivances demanded for the successful treatment of diseases. "It was necessary to shut the door upon many who sought and needed its shelter." The Managers deliberated, and then ". . . determined to erect a new building, which by embracing every necessary arrangement should be as permanent as the future history of the Institution may require."

As in 1836, so in 1846 they turned to the Commonwealth for assistance. And as in 1836, now in 1846 they turned to the City of Boston for land or for a grant in the way of assistance. Boston said

no. The Commonwealth said yes with the offer of $15,000 on the condition that $10,000 was raised from other sources. The state deposited the first $5,000 with the Infirmary in 1847, the second $5,000 in 1848, and the last $5,000 in 1849. The Managers, as a committee, set out to raise the Infirmary's required $10,000. As an incentive, the President of the Board of Managers, Robert G. Shaw, offered to donate $5,000 if $15,000 should be raised from other sources. The drive was a sucess. The state donated an additional $5,000. The house at 175 Charles Street received its first patients in May 1850.

The Treasurer's report for the fiscal year of 1849–50 was:

Policies of Annuity	*$ 6,700.00*
Real Estate, Green Street	*22,149.34*
Real Estate, Charles Street	*25,156.00*
New Building, Charles Street	*39,355.30*
Cash	*8,473.69*
Furnishings, New Building	*2,336.18*
	$104,170.51

Of this sum, $25,000 was money donated by the Commonwealth for buildings; $79,170.51 represented money raised by the Infirmary, donations, and bequests it had received, and income from its invested funds — all this in less than 24 years.

Concerning the house on Green Street, the house was valued at $22,149.34. It had been bought in 1836 for $20,000. The Managers met in special meeting on July 18, 1848, and voted to sell this building for $25,000 to John Wiley Edmands, G. Howland Shaw, and Samuel Hooper. Edmands was the Treasurer of the Infirmary, Shaw its Secretary, and Hooper a member of the Board of Managers. The agreement stated that should there be a resale and should that resale bring in more than $25,000, the excess would go to the Infirmary. If, however, on resale the sum received was less than $25,000, the Infirmary would make up the difference to the buyers. Ten of the Managers signed their names to the agreement.

It is thought that this sale of Infirmary property to a group of Managers and approved by a majority of the Managers was done to get cash to buy the land on Charles Street that would be the site of the new building. The asking price for the land was $25,000. It is further thought, on little basis, that the "new owners" of the Green Street house allowed the Infirmary to occupy those quarters on a no-fee basis.

All of this thinking breaks down on reading the Treasurer's report for the fiscal year of 1848–49 and it is found that the Green Street property is listed on the property schedule at $22,149.34. And that the same figure appears in 1849–50, 1850–51, and so on until 1852–53.

The mystery gets deeper. At their first meeting in the new house on Charles Street, the Managers voted to sell the Green Street property at $32,000. While waiting for a buyer, it would be leased to a proper tenant. There was no stampede of buyers for the property at the asking price. In 1852 the Treasurer gave its value in his report as $25,156. At the 1853 Annual Meeting it was voted to sell the property to J. Wiley Edmands, Treasurer, for $2.75 a foot — $28,473.50.

Two questions from one who knows little of business practices in the 1850s. How could the Managers vote to sell or lease property that had been conveyed to others? How could J. Wiley Edmands buy a piece of property in 1853 that he was on record as buying with others in 1848? A guess, the only one that makes sense: Could it be that, although agreed to by all parties, the 1848 sale agreement was never consumated?

With that transaction out of the way, the Treasurer could report for the fiscal year of 1853–54:

Policies of Annuity	*$6,700.00*
Bank Stock	*5,050.00*
Notes Receivable	*21,937.50*
Real Estate, Charles Street	*69,912.98*
Cash	*6,435.30*
	$110,036.78

Note: At this time there were no debts and there would be no debts for some years to come.

Through the 1850s and into the 1860s, the Massachusetts Charitable Eye and Ear Infirmary, clinically and financially, was pretty much what Hasket Derby described it as being — "a sleepy, old institution." Thanks to gifts and donations, the total worth had increased by $17,000 in ten years. The Commonwealth had each year contributed the $2,500 requested by the Managers. Then in 1861 the Managers, for what seemed to them to be excellent reasons, requested for 1862 only $1,500 from the state. That year — 1861 — is a good year to examine in detail, for it was the last year the Infirmary would be free from financial woes.

That year the assets were: Buildings — $70,000, Investments — $56,000, Total — $126,000. The budget for the year: Utilities — $159, Food — $1,780, Furniture and Supplies — $328, Maintenance and Repairs — $185, Wages — $926, Clothing for patients — $28, Printing — $26, Sundries — $30, Total — $3,876.11. The Commonwealth contributed $1,500 and the patients paid about $500 in board. The $1,876.11 needed to balance the budget came from the income of the investments and gifts. There were four employees and the Matron. One hundred sixty-two patients had been admitted to the house and 33 operations had been done.

A point of interest: That year the Infirmary made a major change in its investment policy. From its funds came $4,000 to purchase U.S. Treasury notes. These had been issued to finance the Union cause in the Civil War. Also in that year the Infirmary made its first investment in railroad stocks and bonds — $9,900. Prior to this date, for years investments had been confined solely to bank stocks and to annuities in the Massachusetts Hospital Insurance Company.

When the Civil War ended, this rosy financial picture ended as well. A disturbed J. Wiley Edmands told his fellow Managers that for the first time in his career as Treasurer he had been unable to balance the budget, for the first time since 1828 the Infirmary had operated at a loss. A total of $1,545.33 had been spent in excess of income in the fiscal year of 1865–66. The expenses for the last quarter had been $2,597.43. The only solution the Board could offer was to direct Edmands to request the state for $5,000 for the coming year — from $1,500 in 1862 to $5,000 in 1867.

Edmands did as he was directed, but he also tried another tactic. In 1867, at the urging of Solomon Davis Townsend, M.D., President of the Board of Managers, the Infirmary began to issue Annual Reports in pamphlet form. The first such report was numbered forty-second, thus making the 1825 report read by Reynolds and Jeffries the first. Edmands placed in the 1867 Annual Report a statement of the Infirmary's financial conditions, and he gave classified details of the expenditures and receipts for the past year: total property — $121,590.86, receipts for the year — $12,078.32, expenditures — $10,657.29. Edmands had been able to use black ink because the state had met the request for the $5,000 annual grant and because a donor in London who wished to remain anonymous had contributed $1,000.

He closed his report with these words: "It has ever been the aim of the managers to draw as lightly as possible on the State-charity

appropriations, but we must ask for a continuance of the same grant of five thousand dollars for the year ensuing. For what is necessary beyond that, to cover the expenses of the coming year, we must rely on the donations of the charitable." In all subsequent Annual Reports, Edmands and his successors would make pleas for "voluntary contributions from individuals." They did so in the hope of realizing an increase of income to balance the budget.

The radically changed financial picture was not the result of bad management practices. The end of the Civil War had brought about a business depression and widespread unemployment. Income from invested funds suddenly dropped. The deserving poor increased in numbers and their demands on the Infirmary mounted. The Managers responded by adding to the number of beds and enlarging the domestic staff to ten. Some of these workers, because of inflation, knew salaries higher than those paid ten years earlier. An example: In 1858 a houseman was paid $192 a year; ten years later, the position paid $240 a year.

1867 was not a good year for charity institutions in general, for in that year the Legislature passed a law making it mandatory for those institutions that received money from the state to file each year a complete financial statement with the state Commission on Lunacy and Charity. In addition, the institutions could know both official and unscheduled inspection visits from representatives of the Commission. No more would appropriations be made on a five-year basis as in the past, a detailed request would have to be filed each year. The state took another firm stand with charity institutions in 1872. As a price for state aid, the institutions would have to accept appointees on their governing boards from the state. The Infirmary Board of Managers was enlarged by two members as the result of this law.

By 1870 the financial picture brightened a bit for the Infirmary. That year the state gave $6,000 and the Infirmary investments returned $5,100. More money was realized from the patients when the price of board was advanced to $5 a week. Then things took a change for the worse and the bad years returned. In 1876–77 the income from investments shrunk by $1,039.79. A year later the dividends received were $5,266.03, the state aid was $8,000, and the income from patients was $709.98. The total income was $13,975.98, the expenses were $15,652.99, and the deficit was $1,677.01. The last was carried over to the next year and the state was asked for more money.

Edmands remarked somewhat sadly that the business of the Infirmary was outgrowing its appointments and means. The original subscribers, once the support of the Infirmary, paid their annual contributions until their earthly ministerings ceased. A new generation had taken the place of the patrons of the past. Would their gifts or bequests, being almost invariably prompted solely by the recognition of the good work done by the Infirmary, be enough? He answered his question by stating that he had faith that private benevolence would not fail to supply the means, not only to support the Infirmary, but also to extend its charitable work. He challenged comparison with any institution in the state for the extent and value of service the Infirmary performed for the community.

At their regular Quarterly Meeting on February 6, 1877, the Board of Managers were informed of the death of John Wiley Edmands. He had served as Treasurer from November 30, 1835 — 41 years of service to the Massachusetts Charitable Eye and Ear Infirmary. In their Minutes, the Managers wrote that the name of J. Wiley Edmands was indissolubly connected with the devoted and successful administration of important charitable trusts and with the development and growth of the manufacturing interests of the state. During the years of his service, he had had the entire charge of the finances of the Infirmary, and to his sustained interest and devotion in its cause was due a large measure of its success.

For a time Augustus Lowell served as acting Treasurer. With the beginning of the 1877–78 fiscal year, Franklin H. Story assumed the responsibilities of the office. In one of his first Reports, he paid tribute to Edmands and the other Treasurers of the Infirmary. "It is 43 years since the Ledger opened with a Cash Entry of $14,232.32 (Dec. 18th, 1835) an amount which has now swelled to $177,283.42 on the same Ledger, which not only shows the liberality of the public towards the institution, but proves the care & sagacity with which your late Treasurers have managed the charge committed to them."

TREASURERS

Boston Eye Infirmary

March 20, 1826–March 6, 1827

Bryant P. Tilden — Resigned, December 6, 1826
James C. Dunn — December 12, 1826–March 6, 1827

Massachusetts Charitable Eye and Ear Infirmary

March 6, 1827–1877

James C. Dunn — March 6, 1827–Resigned, October 18, 1827
William T. Andrews — October 18, 1827–Resigned, Nov. 30, 1835
John Wiley Edmands — November 30, 1835–Died, 1877
Franklin H. Story — October 25, 1877–

COMMONWEALTH ANNUAL GRANTS TO THE INFIRMARY

1837–1918

Year	Amount	Year	Amount	Year	Amount
1837	$2,000	1865	$ 3,000	1893	$20,000
1838	2,000	1866	3,500	1894	20,000
1839	2,000	1867	5,000	1895	20,000
1840	2,000	1868	5,000	1896	20,000
1841	2,000	1869	5,000	1897	25,000
1842	2,000	1870	6,000	1898	25,000
1843	2,000	1871	6,000	1899	25,000
1844	2,000	1872	6,000	1900	25,000
1845	2,000	1873	10,000	1901	25,000
1846	2,000	1874	8,500	1902	25,000
1847	2,000	1875	7,500	1903	30,000
1848	2,000	1876	7,500	1904	30,000
1849	2,000	1877	10,000	1905	30,000
1850	2,000	1878	8,000	1906	30,000
1851	2,000	1879	9,000	1907	35,000
1852	2,000	1880	9,000	1908	35,000
1853	2,500	1881	10,000	1909	35,000
1854	2,500	1882	10,000	1910	35,000
1855	2,500	1883	10,000	1911	45,000
1856	2,500	1884	10,000	1912	45,000
1857	2,500	1885	10,000	1913	45,000
1858	2,500	1886	15,000	1914	45,000
1859	2,500	1887	15,000	1915	45,000
1860	2,500	1888	15,000	1916	45,000
1861	2,500	1889	15,000	1917	45,000
1862	1,500	1890	15,000	1918	45,000
1863	1,500	1891	15,000		
1864	2,500	1892	20,000	Total	$1,179,000

COMMONWEALTH DONATIONS TO INFIRMARY
BUILDING FUNDS

April 20, 1837 — Green Street House	$ 5,000.00
May 7, 1850 — Charles Street House	20,000.00

Feb. 1, 1881 — Charles Street House Enlargement	5,000.00
May 5, 1891 — "Aural Infirmary"	20,000.00
May 9, 1896 — 243 Charles Street	100,000.00
Total:	$150,000.00

TOTAL COMMONWEALTH CONTRIBUTIONS TO THE INFIRMARY

Annual Grants	$1,179,000.00
Donations	150,000.00
Total:	$1,329,000.00

In 1918 the "Anti-Aid" Amendment was passed by the Legislature. This brought an end to the practice of the Commonwealth making direct contributions to charity institutions in Massachusetts.

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Libraries at the Infirmary 1876–1951

And further, by these, my son, be admonished: of making many books there is no end; and much study is a weariness of the flesh.

Ecclesiastes 12:12

I. THE EARLY YEARS

It has often been observed with surprise, that such an institution as the Massachusetts Eye & Ear Infirmary should have attained its present age without possessing a single book of reference. It does seem strange, and I would recommend that the Superintendent be advised to purchase such books of reference as may from time to time be deemed expedient by the Surgical Staff.

George Stedman, M.D., Superintendent.
Report of November 7, 1876.

These words mark the beginning of a formal medical library at the Infirmary. Dr. Stedman received the money he requested, purchased the required volumes, and it is believed, kept them in a cabinet in his office. What volumes were bought, how much they cost, and what use was made of them is not known.

In 1876, the year of Superintendent Stedman's recommendation, the Infirmary was 52 years old. There were five ophthalmic surgeons, two aural surgeons, and three externe–internes on the Staff. That year 8,452 patients were treated at a cost of $15,375.31. The clinics numbered two, one Ophthalmic and one Aural, and there were 48 beds.

There are no records specific to the Library for the nineteenth century or for the first 28 years of the twentieth century. The available information is a sentence here, a sentence there, and another sentence or two from the Minutes of the Meetings of the Managers, the Executive Committee, and the Surgeons. This state of the records tends to give this narrative a broken sequence.

One story of how the Infirmary's literature needs were met from sources other than the Superintendent's Reference Collection has come down to us. Myles Standish, M.D., Infirmary House Officer, 1883–84, wrote of Francis Peleg Sprague, M.D., Ophthalmic Sur-

geon, "If the case under consideration has been unusual, he perhaps would appear in the House Officers' dormitory at the end of the day with several books from his library, each with carefully inserted bookmarks to direct attention to articles upon the subject which had been discussed in the morning clinic."

The Surgeons were not satisfied with the Superintendent's Reference Collection and they said so at their Staff Meeting in 1886. Two years later, in 1888, they gave the subject more serious attention. The occasion was the Surgical Staff Meeting, where they agreed to petition the Managers to divide the single surgical service of the Infirmary into two services — Ophthalmic and Aural. A step in this direction had been taken more than 16 years earlier, when the one clinic had been made two clinics and staff appointments had been made designating the Surgeons as either Ophthalmic Surgeons or Aural Surgeons, rather than as Surgeons.

Clarence J. Blake, M.D., spokesman for the Aural Surgeons, brought forth an educational plan for his service. His third point read: "To establish a reference library to include copies of standard works on Otology and of the best Otological journals, the nucleus for the library having already been obtained." He asked the Board of Managers for $100 and he got it.

Blake's success in obtaining funds for an Aural collection stimulated the Ophthalmic Service to move. They were not as modest as the Aural Surgeons, for they requested $500 for a "Consulting Ophthalmic Library," plus a suitable book case. The resolution of the matter was placed in the hands of J. Collins Warren, M.D., President of the Board of Managers. It was his decision that after the first year's donation, each of the Services was to be granted $50 a year for the purchase of textbooks and journal subscriptions in their respective areas, and that the selection of the material and the management of the collections be the task of the two Surgical Boards.

The Surgeons appointed Frederick E. Cheney, M.D., Assistant Ophthalmic Surgeon to be the first Librarian. They named Francis Peleg Sprague, M.D., Ophthalmic Surgeon, and J. Orne Green, M.D., Aural Surgeon, to serve as a Library Committee. It was the task of the Committee to draw up the rules for the Library and to approve purchases. Dr. Cheney, the Librarian, had full charge of both the Ophthalmic and Aural Collections. He enforced the rules drawn up by the Committee and made the purchases recommended by them. In each book he placed the appropriate markings and cards so they could be circulated on loan. In addition, he had the

unpleasant tasks of worrying about overdues and missing books and preparing a catalogue of the holdings. The Library was open to all medical men connected with the Infirmary. They could borrow books, one volume at a time, for a loan period of from noon to 9 A.M. the following day.

The Ophthalmic Service ordered *Graefe's Archiv*, *Klinische Monatsblatter für Augenheilkunde*, *Hirschberg's Centralblatt*, *Annales d'Oculistique*, and the *Royal London Ophthalmic Hospital Reports*. They ordered no U.S. ophthalmic journals. These they had in their personal collections and they reasoned this would suffice. As for textbooks, they bought the *Graefe–Saemisch Handbuch*, the Wecker-Landolt encyclopedia, volumes by Fuchs, Donders, Hirschberg, Mauther, and Hutchinson. Before long they found they had spent more than their appropriation. Dr. Hasket Derby could not believe that in less than a year $620 had been spent on ophthalmic books and only $80 on aural books. He wrote one of his characteristically sharp letters to the Librarian. Dr. Cheney's reply is not known. But he must have found the whole job too much, for he resigned shortly afterward, having served about a year. The post was assigned to the First Ophthalmic and Aural Interne. This meant that the Library would know a new librarian each year — not an ideal situation as was soon learned.

Like all libraries since time began, it was not long before the infant of the Infirmary knew the loss of books and journals. Where they went, how they went, no one knew. So, the rules were tightened. *No* books could be borrowed, all books had to be returned to their shelves after being used, and only the Superintendent and the Senior House Officers had keys. But somehow the books continued to disappear. The Aural Staff became most unhappy. They took their collection and placed it in their Surgeons Parlor in the Aural Building and put it in charge of the Aural Interne. The Ophthalmic Staff left their collection where it was, but decided that it would be better if the House Officers were not made responsible for the care of the collection; only the Superintendent would have keys to the cabinets.

The financial picture was uncertain. Each year the Library Committee would ask the Board of Managers for an appropriation — $50 for each collection. In 1893 the Managers said no to the request. The Ophthalmic Staff solved the problem by assessing each Senior Surgeon $5 a year and each Assistant Surgeon $3 a year — a total of $42 a year. The Aural Staff was in a more fortunate position. In the early 1890s unnamed friends of the Infirmary contributed

$5,021.12 of telephone stock to establish the Aural Surgeons' Fund. The annual income could be expended to purchase instruments, appliances, books, and other such objects as the Aural Staff might desire for the use of the Aural Department. Between 1893 and October 1897, $170 of the fund's income was spent for books. From these figures, it can be estimated that the total Library budget in this time was of the order of $100 a year. Only one gift came to the Library in its early years: items from the library of Dr. Robert Willard when he died in 1892. At this same time, sizeable and valuable gifts of books and journals were made to the Boston Medical Library by Drs. Derby, Jeffries, Wadsworth, and Blake.

When the Infirmary moved to its new building at 243 Charles Street in March 1899, the books of both collections were placed in cabinets in the new Surgeons Parlor. One lot of cabinets for ear books and one lot of cabinets for eye books. In spite of their short lives and lean financial diets, the collections must have been of a respectable size and nature, for in the records we read of bound journals and unbound journals, of monographs and reprints, of atlases, dictionaries of all sorts, of charts, and of books containing plates of unusual value, But still no librarian — the Superintendent's office staff acted as watchdog.

No one was entirely happy with the Library's funding and management. Problems were always arising. An example: In 1908 Dr. Gustavus Hay died and left his collection of ophthalmic books and journals to the Infirmary. The Staff welcomed the gift until they learned that several of the items required binding and would cost money. Then, to quote from the Minutes of the Staff Meeting: "The expense of binding was discussed and the opinion was that as the books had been left to the Infirmary and it should bear the expense."

The year of 1912 marked a low point. Dr. Edwin E. Jack reported to the Ophthalmic Staff that no periodicals had been taken for the year because of a complete lack of funds. Dr. D. Harold Walker reported to the Aural Staff that there were not sufficient funds available to pay for the current otological journals and binding. Each man suggested to his Staff that an increase in voluntary contributions might be in order. The response of the Boards of Surgeons is best narrated by again quoting from their Minutes: "It was voted that the Conference Committee suggest to the Board of Managers that the Staff feels that the Library is part of the hospital equipment and should be provided as such."

It would seem that the Board of Managers agreed with the suggestion, for at their next meeting they voted to appropriate $300 a year for the Infirmary Library; $125 for the Aural Collection and $175 for the Ophthalmic Collection. As time went by, these annual sums were gradually increased.

During the early 1920s, the Infirmary and its neighbor, the Massachusetts General Hospital, grew closer together on managerial and clinical levels. Both institutions had the same Director, Surgeons held appointments on both hospital Staffs, maintenance services were shared. In keeping with this trend, it made a certain amount of logic to some for the Infirmary Library, underfinanced as it was and without a regular librarian, to become a part of the Massachusetts General Hospital Treadwell Library. Dr. Washburn, the joint Director, brought the matter up at the Executive Committee meeting in May 1924. His plan was for the Infirmary to pay the Massachusetts General Hospital a certain amount, move most of the books to the Treadwell Library for correct custodial care, and arrange for the Infirmary Staff, House Officers, and Nurses to have full use of the Treadwell.

When the group met next, the Aural Staff sent a recommendation that the Aural Library be joined with that of the Massachusetts General Hospital, except for certain books and current journals that for reference purposes should be retained in the Surgeons Parlor. Dr. George S. Derby reported that the Ophthalmic Surgeons voted that they did not approve of using the facilities of the Treadwell Library for their Staff. Failing to gain 100 percent acceptance, the idea died.

In preparing his report, it may be that Dr. Derby was influenced by a bit of information that was not common knowledge. That bit of information was that Lucien Howe, M.D., of Buffalo, New York, was looking for a site for a research laboratory of ophthalmology.

II. THE MIDDLE YEARS

Dr. Howe, of an old New England family, was born in 1848 in Standish, Maine. Because his family was of the military, he spent much of his youth at one frontier outpost or another. He graduated from Bowdoin College in 1870, and then went on for a year at Harvard Medical School, leaving there to take his M.D. degree at the Long Island College Hospital and the Bellevue Hospital Medical

School. Like many young doctors of the time, he went to Europe for postgraduate training. In 1874 he began practice as an ophthalmologist and otologist in Buffalo, New York. That practice he continued for fifty years. He and Mrs. Howe had no children. When he retired, they decided that the family money could best be passed on by endowing in the family name a research laboratory of ophthalmology. Dr. Howe considered several centers before he decided on Harvard Medical School and the Massachusetts Eye and Ear Infirmary. President Lowell made formal announcement of his generous gift at Harvard's June 1926 University Commencement. The agreement that Harvard reached with the Infirmary called for the Infirmary to provide the laboratory and library with floor space and the usual maintenance services free of charge. From the income of Dr. Howe's gifts, Harvard would meet the salaries of the investigators and the cost of laboratory supplies. The laboratory from its funds would support its own library.

To meet its commitment to provide space for the Howe Laboratory and its Library, it was necessary for the Infirmary to join the Massachusetts General Hospital in constructing what became known as the Connecting Building, so-named because the building connected the structures of the Infirmary and the General. Into this new building the Infirmary moved its outpatient facilities. Then 2,100 square feet of the old outpatient clinic on the first floor of the Infirmary facing Charles Street was assigned to the Laboratory. Across the hall from the Laboratory, 720 square feet was assigned to the Library. The library area was composed of two rooms joined by a short corridor. On August 28, 1928, the Library of the Howe Laboratory opened its door for business. The Librarian was Mrs. Ada Messenger.

Note: It was the Library of the Howe Laboratory, a new entity. Its contents were mainly volumes from Dr. Howe's large personal library. The Infirmary Library, with its collections of ophthalmic literature and aural literature, remained in the Surgeons Parlor. Because of his position as Director of the Howe Laboratory, Dr. Howe was invited to become a member of the Hospital Executive Committee. The problem of the Infirmary Library came up for discussion on the October 2, 1928, meeting of the Committee. Then Dr. Howe agreed to combine the Library of the Infirmary with his Howe Laboratory Library. It was his opinion, however, that a complete fusion of the two libraries was not desirable, that only the ophthalmological collection could be united and brought under the care of Mrs. Messenger. It was agreed that each collection

would bear its own stamp of ownership and each of the parties, the Infirmary and the Laboratory, would share the costs of binding and additions. Where there were duplicate sets of journals, one set would be sold off and the money used to meet the original owner's obligations. The combined library would be known as the Library of the Howe Laboratory of Ophthalmology and the Massachusetts Eye and Ear Infirmary. As for the Aural Collection, in keeping with an earlier decision, it was moved to the Treadwell Library at the Massachusetts General Hospital, with the exception of a small number of items that for working purposes were kept in the Mosher Laboratory.

An understanding as to why Dr. Howe agreed to the fusion of the ophthalmological collections into one library may be found in a memo he presented to his investigative staff at a meeting held some five months before his death on December 27, 1928. As he saw it, the functions of the Howe Laboratory were to be:

1. *To investigate certain great fundamental problems of ophthalmology.*

2. *To issue bulletins that would be contributions to the literature of ophthalmic science.*

3. *To establish and develop a comprehensive library of ophthalmic books and periodicals.*

4. *To form a collection of "antiquities," such as apparatus, pictures, and documents illustrating the history of ophthalmology.*

Copies of his memo were sent to the Dean of Harvard Medical School, the Director of the Infirmary, and the Chief of Ophthalmic Service at the Infirmary; but it remained for his widow, Elizabeth Mehaffey Howe Howe,* to take on the task of seeing that the last two points of Lucien Howe's memo were carried out.

Dr. Howe's death left the Laboratory and the Library in limbo. In comparison with the Laboratory, the Library moved out of that position quite quickly. On December 20, 1929, F. A. Washburn, M.D., Director of the Infirmary, and D. L. Edsall, M.D., Dean of Harvard Medical School, signed an agreement relative to the

*Dr. and Mrs. Howe were first cousins.

division of expenses of the Library. From the income of the Howe funds, the Medical School would pay the salary of the Librarian, Mrs. Messenger. In addition, the School would pay one half the cost of new books, periodicals, bindings, and supplies. The Infirmary would pay the salary of the part-time Assistant Librarian and the cost of lunches for the Librarian and the Assistant Librarian. The Infirmary would also pay one-half the cost of new books, journals, bindings, and supplies. All costs relative to space would be met by the Infirmary. The agreement closed with a statement as to the disposition of the books in event the Laboratory should leave the Infirmary.

Lacking a Director, the investigators of the Laboratory could only move ahead with those projects that had known Dr. Howe's approval before his death. His widow, Mrs. Howe, who must have been a woman of firm ideas and a formidable personality, saw no reason for there to be a static state with the last two points of her husband's program. Accordingly, she made her presence known in the Library. It was she who had been responsible for supplying the furniture. Her donations: the main reading table, which had once been the state dining table of her Buffalo mansion, an overhead Tiffany-style chandelier of bronze and colored glass that had once been in her parlor, a smaller table from her library, and a number of easy chairs. High on the walls over the book stacks, she placed the Howe family portraits: Dr. Ebenezer Howe, General Albion Parris Howe, Colonel Marshall Spring Howe, Captain Albion Howe, Lucien Howe, and Mrs. Howe herself. The Infirmary Director, Dr. Washburn, approved, for he wrote: "These handsome pictures have embellished the Library and the room is now dignified, attractive, and useful."

Mrs. Howe moved from large pictures to small pictures. By dint of a great deal of searching and much correspondence, aided by the Librarian, she assembled photographs of many of the past worthies of ophthalmology. These she had mounted, framed, and then hung wherever there was a bare wall inside or outside of the Library. She purchased a museum case and arranged to display many of the old ophthalmic instruments her husband had collected. Having done all this, she was now ready to turn her attention to the collection itself. Here she met an adversary worthy of her steel — Frederick Herman Verhoeff, M.D., newly appointed Director of the Howe Laboratory.

The agreement that Lucien Howe reached with Harvard called for him to serve as Director of the Laboratory until he found a

younger man suitable for the post. Unfortunately, his search was short-lived. One of the candidates he considered was a young Scotsman, William S. Duke-Elder, later Sir Stewart Duke-Elder. Dr. Howe's comments on this candidate are of interest: "I do not hesitate to say that I have seriously considered asking one or two men from abroad, in particular Duke-Elder, who is looked upon as a rising man in ophthalmology. He was within an ace of coming to this country, and I had arranged for Dr. Lancaster to have him give three lectures as a preliminary to stepping into my place almost at once. But he is indifferent about coming, and so far as I can learn of him personally his name is to be eliminated."

With no Director selected by Howe, after his death the search for the proper man became the task of the Medical School and the Infirmary. They were prepared to take plenty of time, for they were anxious that no mistake be made in the selection. It was not until the summer of 1931 that a decision was reached and that decision was a compromise one. Instead of a single Director to manage the affairs of the Laboratory and the Library, a committee was appointed: Hans Zinsser of Harvard Medical School, George S. Derby, M.D., Chief of the Infirmary's Ophthalmic Service, and Frederick H. Verhoeff, M.D., the Infirmary's Pathologist. This committee then appointed Dr. Verhoeff to be Acting Director. On August 1, 1931, the Howe Laboratory began to function anew. To mark the occasion, Mrs. Howe, who was in Europe, arranged for a beautiful floral piece to be in the Library.

The death of George S. Derby, M.D., on December 12, 1931, put an end to the "Committee of Three." On July 1, 1932, Dr. Verhoeff was named by Harvard and the Infirmary to be Director of the Howe Laboratory. As Director of the Laboratory, he was responsible for administering that portion of the Library's expenses, according to the 1929 agreement signed by Edsall and Washburn — the salary of the Librarian, and one-half the cost of new books, journals, and other requisitions. He also served as supervisor of the Library.

Another event occurred in 1932. On May 9 the Board of Managers of the Infirmary approved the formation of a Library Committee. When the group met for the first time on September 9, its composition was Mr. Walter Trumbull of the Board of Managers, Mrs. Elizabeth Howe, Dr. Verhoeff, Dr. J. Herbert Waite (Chief of Ophthalmic Service), and Dr. Frederic A. Washburn (Director of the Infirmary). Mr. Trumbull was elected Chairman and Dr. Washburn was elected Secretary. At a later date, the group would

be joined by Dr. Walter Lancaster of the Infirmary's Ophthalmic Staff, and Dr. Sidney Burwell, Dean of the Medical School, and Keyes Metcalf, Director of Harvard University Libraries.

When the Committee took over the affairs of the Library of the Howe Laboratory and the Massachusetts Eye and Ear Infirmary in 1932, the collections — the Howe Collection and the Infirmary Collection — totaled 661 textbooks, 1,549 bound journals, and 1,657 pamphlets — total holdings 3,867. It should be noted that the pamphlets were not pamphlets by strict definition of the term: At least 75 percent of them were journal reprints. All of the holdings had been catalogued and classified by the Boston Medical Library system. This task, the typing of all the catalogue cards and records, the stamping, labeling, and shelving of all material had been done single-handedly by the Librarian, Ada Messenger. By all criteria of library science, the collections were in excellent order. In that year, 1932, 85 new bound journals and 32 textbooks were added to the collection. There was an attendance of 5,561 and 549 items were circulated on loan. The Library was under Mrs. Messenger's supervision 9 A.M. to 5 P.M. daily; evenings, weekends, and holidays an assistant had the responsibility. In addition to being Librarian, Mrs. Messenger was Secretary for the Howe Laboratory, that is, she had two job responsibilities. For the times there was nothing unusual in this. In small hospitals and in large hospitals as well, medical librarians frequently had duties other than those of being medical librarians. Typical was Grace Myers, longtime librarian of the Massachusetts General Hospital's Treadwell Library, who also served the hospital as Medical Records Librarian. Mrs. Messenger's salary, paid from the income of the Howe funds, was $1,800 a year.

The Edsall–Washburn agreement had called for an equal sharing of all costs of *new* books, journals, bindings, and supplies. Note that the word *new* is emphasized here. This single word, more than anything else, would be the cause of great dissension between Mrs. Howe and Dr. Verhoeff in Committee meetings and out of Committee meetings. The Edsall–Washburn agreement had done one other thing: It had placed on record the recognition by Harvard that the Library was to be, in part, the financial responsibility of the Howe Laboratory and its endowment funds. It was Dr. Verhoeff's decision, as Director, to determine just how much of the funds that were available to him for all laboratory purposes should be budgeted to support the Library. Reading through the corre-

spondence of the early years of the Committee, it would seem that no sum he suggested was ever enough to please Mrs. Howe.

She placed her case on Point Three of Dr. Howe's 1928 Four Point Memo: "To establish and develop a comprehensive library of ophthalmic books and periodicals." She was appalled to learn that Dr. Verhoeff was not acquainted with this memo, even after holding the post of Director for some months. To her a "comprehensive library" was one that contained all the literature of ophthalmology, the old as well as the new. Dr. Verhoeff believed that what he should be reasonably expected to buy was the "new" literature: The 1929 agreement said so. It would seem that Dr. Waite, Chief of Ophthalmic Service, and Dr. Washburn, Infirmary Director, agreed in general with him. Meetings of the Library Committee where these two philosophies clashed were often torrid sessions indeed. Mr. Trumbull, the Chairman, might be called upon to play the role of peacemaker. In later years, he would recall how Mrs. Howe would often become so angry with Dr. Verhoeff that she would remove her ear trumpet so she would not hear the sound of his voice.

In spite of this turbulence, the Library did manage to move ahead and establish itself on a businesslike basis. A book purchase committee, representing all elements of the Infirmary and the Laboratory, was formed. It was their task to review the titles of new publications and recommend purchases. This was true of books as well as journals. At the close of 1933, the Library was receiving 24 journals, 18 of which were ophthalmic. The fair action of the purchase committee served to mollify Mrs. Howe to a degree.

The Library Committee, for reasons that today are hard to understand, concerned itself with Point Two of Dr. Howe's Four Point Memo: "To issue bulletins that would be contributions to ophthalmic science." During Dr. Howe's tenure, arrangements had been made to publish four such bulletins. Much of the work had been done in the Library. At the Library Committee meeting of February 4, 1934, it was voted that $400 of the Howe Funds income be spent to have Dr. Clyde Keeler, an investigator of the Howe Laboratory, assemble material for a fifth bulletin, a catalogue of hereditary eye diseases. At the same meeting, $600 was voted for the book and journal budget of the Library. Incidentally, the Keeler bulletin was never published.

The first complete annual financial report that has come down to us is for the calendar year 1937. In keeping with the 1929 agree-

ment, the Howe Funds paid $1,800 for the salary of the Librarian and $95 for her vacation relief; $299.61 for books and journals; $14.46 for supplies; $34.24 for binding; and $12 for the telephone. The Infirmary paid $677.77 for the Assistant Librarian and lunches. As did the Howe Laboratory, the Infirmary paid $399.61 for books and journals; $14.46 for supplies; and $34.24 for binding. In addition, the hospital spent $54.96 for heat and light, and $77.31 for overhead. Total cost to the Howe Funds for 1937 — $2,256.51; for the Infirmary — $1,221.55. For the year 1938, the Committee suggested a budget of $3,600: $2,300 from the Howe Funds and $1,300 from the Infirmary.

The book inventory at the close of 1937 was 802 textbooks, 1,745 bound journals, and 2,384 pamphlets — total holdings, 4,931. There was an increase of 1,064 items in five years. The number of journal subscriptions had increased to 38.

Because the Library's major source of income was from the Howe Endowments entrusted to Harvard, the Library was considered by Harvard to be a branch library allied to the Harvard Medical School Library. To bring reality to the fact, it was agreed in 1937 to maintain at each of the libraries cards of the ophthalmic holdings of both libraries.

A year later Harvard entered the picture again. The Library had a name, a truly descriptive name, but an awkward one — The Library of the Howe Laboratory and the Massachusetts Eye and Ear Infirmary. When the Committee met on October 21, 1937, Mrs. Howe read a letter from Dr. Burwell, Dean of Harvard Medical School, that if the Library Committee would make a recommendation concerning the change in the name of the Library to the Lucien Howe Library, he would be glad to transmit it to the proper authorities. The Committee made the recommendation and the Dean transmitted it. On January 3, 1938, the President and Fellows of Harvard voted to designate the Library to be *The Lucien Howe Library of Ophthalmology*. The Committee gave its approval to this vote.

It is surmised that this action was brought about through the endeavors of Mrs. Lucien Howe. With her husband's name so properly bestowed, she set about on her final campaign to make the Lucien Howe Library of Ophthalmology what her husband wanted it to be: " . . . an ophthalmological library as good as any in New England or elsewhere."

In the area of new books and journals, the book purchase committee had been doing a job that met Mrs. Howe's expectations to

a degree. She knew the Library contained complete runs of the major ophthalmic journals and most of the recent textbooks. Where the Library failed to be as "comprehensive" as she wanted it to be was in its holdings of the older and classic works, those important to the history of ophthalmology. To define the exact nature and extent of this failure, she turned for advice to Dr. Harry K. Messenger. Dr. Messenger, the husband of Ada Messenger, the Librarian, was a man trained in the Classics as well as in medicine. His was a mind that knew great delight in the reading and collecting of old and scholarly works. At Mrs. Howe's request, he prepared a list of books fundamental to the history of ophthalmology. At the same time, she communicated with Dr. Casey Wood, an old friend of her husband who was living in Rome and who was engaged in translating and collecting the classics of ophthalmology. Guided by these two men, she made her first big purchase for the Howe Library — the 1583 edition of Georg Bartisch's *Augendienst*, the first textbook in German on ophthalmology. What price she paid for this treasure is not known, but had she bought it in 1976 rather than in 1936, it would have cost her in the neighborhood of $5,000. In the next two years, with the advice and assistance of the same men, she acquired 95 rare books on ophthalmology. These she deposited as her personal property in Widener Library with the proviso that they be available to persons using the Lucien Howe Library. In addition, through Dr. Wood, she made arrangements to have photographic copies made of certain very rare ophthalmic items in the Vatican Library and the British Museum. This was not enough: She had the Library Committee direct Dr. Harry Messenger to compile a bibliography of the history of ophthalmology.

And there was to be more from Mrs. Howe. In 1938 she arranged for two funds to go to Harvard with the terms that their incomes be used to purchase books of scholarly value, manuscripts, and other such material as would develop the Howe Library as a place of research. Special attention was to be given to the history of ophthalmology. None of the income was to be used for current expenses nor for the purchase of current literature. Very wisely, as time would prove, Mrs. Howe arranged for a review of the funds, their expenditures, and their future use at the end of a twenty-year period. At the end of their first fiscal year, the two funds knew an income of about $410. Because of the special nature of these funds, Dr. Messenger and Mr. William Jackson, Rare Book Librarian of Harvard, were named a special committee to recommend purchases. Among the first items to be purchased was a complete

file of the *Index Catalogue of the Library of the Surgeon-General's Office*, the great guide to all medical literature.

Having accomplished this, Mrs. Howe withdrew somewhat from active involvement in the affairs of the Library. She no longer attended Committee meetings. Dr. Harry K. Messenger joined the Committee and acted as spokesman for her wishes, but from her home in Belmont came letters questioning the use of the Library for such things as journal club meetings, on the need for additional rules, the future of her portrait, bookplates, and the offer of $200 for current book purchases, provided the sum was matched from other sources. Mrs. Elizabeth Howe, good and generous friend of the Lucien Howe Library of Ophthalmology, died on October 11, 1942, in her 83rd year. In her will, she remembered the Library again with a bequest, the income of which was to be used to maintain the Lucien Howe Library of Ophthalmology in Harvard University.* The Library Committee's eulogy of her ended with the words that through her efforts the Howe Library had ". . . assumed a useful and respected place in Ophthalmology."

Mrs. Howe had been joined by others in making gifts to the Library in its early years. From the estate of George S. Derby, M.D., came a collection of photographs of the Presidents of the AMA Section on Ophthalmology, books from his library, and memorabilia of his family. From Dr. Walter B. Lancaster and Dr. Paul A. Chandler came rare volumes, worthy companions to those donated by Mrs. Howe. From time to time and from various individuals came artifacts for her museum.

In 1940 Dr. Frederick H. Verhoeff retired as Director of the Howe Laboratory. His position was taken by Dr. David G. Cogan. One of Dr. Cogan's early acts was to relieve Mrs. Messenger of her responsibilities as Laboratory Secretary and allow her to devote all of her time to the affairs of the Library. Business in the Library had reached the stage where this was necessary. The finances of the Library continued to be met in keeping with the 1929 Edsall–Washburn agreement, as demonstrated by the 1940 expenditures. In that year the Howe Funds provided $1,800 for Mrs. Messenger's salary (this figure had not changed since 1928), $372.89 for books, journals, and bindings, and $28 for telephone and miscellaneous expenses. The Infirmary paid $485 for the night librarian, $191.51 for lunches, $372.89 for books, journals, and bindings, and $240.84

*The three funds of Mrs. Howe are Harvard funds. Their account numbers are 1651–2, 1653–2, 1654.

for telephone, overhead and maintenance. Cost to the Infirmary — $1,291.78, cost to the Howe Funds — $2,200.39, total cost — $3,392.17.

In the twelve years of its history, the Lucien Howe Library had operated without bookplates for its collections. The books were identified by rubber stampings, embossings, and markings — one lot for items from the original Infirmary collection, one lot for the original Howe Collection, and a third lot for those that were jointly owned. This practice, a departure from standard library procedures, had been a subject of discussion at several Committee meetings. The problem was turned over to Keyes Metcalf, Director of the Harvard Libraries, for solution. Mr. Metcalf did his work promptly, but it took two years for the Library Committee to make the final decisions. The design chosen was simple and dignified. The Lucien Howe books, and those bought with the income of his endowments and from Mrs. Howe's funds, bore the Harvard *Veritas* seal and the legend *Harvard University — Lucien Howe Library of Ophthalmology*. The original Infirmary books and those bought from Infirmary funds bore the seal of the Infirmary and the legend *Massachusetts Eye and Ear Infirmary — Lucien Howe Library of Ophthalmology*. The Harvard bookplate was printed on cream-colored paper, the Infirmary bookplate on white paper. For those books that were jointly owned, a bookplate combining the design of the two was used.

When the Library Committee met on October 19, 1944, the principal matter of business to be attended to was the resignation of Mrs. Ada Messenger, Librarian for 16 years. It was " . . . accepted with regret and a letter of appreciation was sent to her for her long and faithful service."

The Committee agreed that the duties of the new librarian should be primarily those of a librarian who should also be able to do the editorial work of the Howe Laboratory and to assist any member of the Staff with bibliographical work. Dr. Cogan, Mr. Metcalf, and Dr. Faxon were appointed a search committee. The librarian they found who met the job requirements was Miss Jeanette Loessl. She began her duties on November 1, 1944, with an annual salary of $2,000. One of her first tasks was to take a book inventory. Of the 5,698 items she found that 19 textbooks were missing. She recalled the rare books that Mrs. Howe had deposited at Widener, catalogued and classified them, and returned nine of the rarest items to Harvard's Houghton Rare Book Library, until such time as the Howe Library had adequate facilities to store and display such

treasures. Perhaps Miss Loessl's most frustrating task, one that lasted for several years, was to obtain by one way or the other those issues of foreign-published journals of ophthalmology whose delivery had been interrupted by World War II. She knew final success with all except two German titles whose entire stock had been destroyed in an Allied bombing raid.

As related earlier, from the time of its establishment in 1888, the medical library of the Infirmary had been in two distinct collections, of the Ophthalmic Staff and the other for the Aural Staff. Each Staff managed its own collection, each Staff was responsible for its own collection's funding. This was done by contributions from the Staff or by annual grants from the Board of Managers. Until 1928 both collections were housed in the Surgeons Parlor. In that year the Ophthalmic Collection joined the Howe Laboratory Collection in the quarters of the Howe Laboratory Library and was placed in the custody of the Howe Librarian. Dr. Harris P. Mosher, Chief of Oto-Laryngology, arranged for the old portion of the Aural Collection to be moved from the Surgeons Parlor to the Hooper Room. Newer volumes he had transferred to the Massachusetts General Hospital's Treadwell Library, arranged for that library to purchase current books and journals, and paid a sum of money, thought to be $200 a year, to that library as a "users fee" for E N T Residents and Staff. A working collection was kept in the Mosher Laboratory. This arrangement continued through Dr. Mosher's term and into the time of Dr. LeRoy Schall.

In the early 1940s, Dr. Schall began to pressure the Howe Library Committee and the Administration of the Infirmary for space in the Howe Library for his E N T Collection. His third request was made in 1946. Then the Committee turned to Keyes Metcalf, Director of Harvard Libraries, for guidance. He turned to Miss Anna Holt, Librarian of the Harvard Medical School. She reported that the monographs and journals of ear, nose, and throat were not very large in number and were decidedly poor in quality and that they were certainly unsatisfactory in their present condition. All that could be said in favor of the status quo was that it did not cost anyone very much in hard cash. It was Metcalf's opinion that if the Staff of the Infirmary was satisfied, there was no need for immediate action. He did confess, however, that it seemed to him to be the natural thing to build a small working E N T library and to combine it with the Howe Library. He hoped there would be a time when space in the Infirmary would allow there to be a library devoted to all phases of the medical sciences important to the Staff.

Dr. Schall's efforts bore little fruit until 1949, when he informed the Board of Managers that it was his opinion that the Infirmary could not be approved for resident training unless there was a formal library of otorhinolaryngology. The Managers ruled that space had to be made in the Howe Library for the otorhinolaryngology collection.

There was no space in the Library, and there was no plan for the sharing of expenses. But space had to be found, and a plan of financing had to be worked out. Dr. Schall said he needed shelf space for 1,000 volumes. The more than 4,500 volumes of the Ophthalmic Collection filled every inch of available shelf space and more. Something had to go and the something that went was Mrs. Howe's portrait and her museum case. Her portrait was taken from the wall of the smaller room and placed beside that of her husband in the larger room. Her museum case was put in the main corridor outside the Library. In the area vacated, a single metal stack and a journal rack were placed. The room had a 14-foot ceiling, the new stack and the old stacks were 12-feet tall. This meant that to return books from the top shelves, the Librarian had to climb a 10-foot ladder. In 1950, when the 198 textbooks and 210 bound journals of the E N T Collection were placed in the single new stack, the Librarian had to haul out a heavy wooden ladder and at the risk of life and limb make trips up into the darkness and dust at least six times a day to provide the volumes requested by the E N T Staff.

Dr. Schall had opinions of his own on how his collection should be financed. He believed that all costs should be carried by the Infirmary, not by his department. He was a reasonable man, however, and he worked out an agreement with the Infirmary's Director, Mr. Francis S. Hill. Dr. Schall would pay from his E N T Professional Fee Fund the cost of new otology books and journals. The Infirmary would pay for bindings and for the cost of certain general medical books and journals.

The name bestowed on the E N T Collection was the Massachusetts Eye and Ear Infirmary Library of Otorhinolaryngology. Now, in the 720 square feet there were two libraries. In reports and correspondence the Librarian often had to refer to the two together — *The Lucien Howe Library of Ophthalmology of the Harvard Medical School and the Massachusetts Eye and Ear Infirmary* and *The Massachusetts Eye and Ear Infirmary Library of Otorhinolaryngology* — the longest name ever given to any library. A bookplate bearing the seal of the Infirmary and the name of the new library was

approved for use. Dr. Schall was made a member of the Library Committee.

The Schall–Hill agreement took care of the book, journal, and binding budget of the Otology Collection. What remained was the entire budget of the Ophthalmic Collections and the costs of maintenance and overhead and the Librarian's salary. An ad hoc committee was appointed to review the 1929 Edsall–Washburn agreement. They reported that they foresaw a future in which the Library would become a hospital library, analogous perhaps to the Treadwell Library of the Massachusetts General Hospital. If this was to be, then it seemed proper that the Howe Laboratory and the Howe Endowment Funds should be relieved of part of the financial burden. The salary of the Librarian should be shared because she would be serving the entire Infirmary community and not just the Howe Laboratory Staff and the Ophthalmic Staff. The cost of ophthalmic books and journals should undoubtedly be continued on a shared basis.

It was voted that all expenses be met on a 60–40 basis, 60 percent by the Infirmary and 40 percent by the Howe Funds. This put the Librarian on a split payroll. All maintenance and overhead costs would be met by the Infirmary. In 1950, the first year of the new agreement, the running expenses of the Library, exclusive of the E N T book and journal budget, totaled $5,361.85. The Infirmary paid $3,379 and the Howe Funds $1,982.85.

In 1950 the Lucien Howe Library was 22 years old. What sort of a library had it become? Was it the largest ophthalmic library in the country? The Committee was most anxious to know. The Librarian was instructed to have letters of inquiry sent to the Army Medical Library, to the John M. Wheeler Ophthalmic Library at Presbyterian Hospital, New York, and to the Library of the Department of Ophthalmology of the University of Pennsylvania Hospital. The data she obtained was joined with a report by Dr. Messenger on the ophthalmic library at McGill University. The Committee's conclusion: "The Library here, while not the largest in the country, is the outstanding Ophthalmological library in the city. It is felt that it is important that we have material that is wanted." In 1950 the collections contained 4,607 volumes and 2,616 pamphlets.

At the beginning of 1951, Miss Jeanette Loessl resigned as Librarian. Her place was taken on April 15, 1951, by Charles Snyder.

The new Librarian, although of a highly impressionable nature, was not impressed by what he found in the Lucien Howe Library

of Ophthalmology. True, thanks to the intelligent efforts of his two predecessors, the collections were in excellent physical condition and the catalogues and records in good order. But the Library itself was a different story. Here he saw what was all too common in hospital medical libraries of the time. Gloom was the only word to describe it. Gloom everywhere. Worn brown linoleum covered the floor. The book stacks, packed to the limit and beyond, were of the type used in industrial warehouses and were painted an ancient and dirty green. The main reading table that had once graced Mrs. Howe's dining room, was battered, scarred, and cigarette burned. Her monstrous chandelier was a poor source of illumination. Although still comfortable, the leather-covered easy chairs were badly worn and cracked. And 23 years of dust from Charles Street had come in the windows and begrimed many of the volumes to a point where they could never be satisfactorily cleaned. The equipment he had to work with was one old desk that someone had once painted and then forgotten, one yellow oak swivel chair that had a murderous tendency to suddenly tilt from time to time, two mismated file cabinets, two six-drawer card catalogues, and one twenty-year-old L. C. Smith typewriter. Looking down on him, and on the terribly crowded quarters, were those portraits of all the dear departed Howes. There was not a charitable eye or ear among them.

There was one quality in the Library he did not see or know existed. That quality: the men he was to be responsible to. Chance had favored him and had brought together a group of men of rare understanding: Edwin B. Dunphy, M.D., LeRoy A. Schall, M.D., Francis S. Hill, and David G. Cogan, M.D. It would be years before he would have the wit to appreciate them.

Oblivious of his good fortune, the new Librarian set about his first task: how to correctly spell and pronounce ophthalmology and otorhinolaryngology.

How well he learned to spell, how well he met his charge, can best be learned by turning to the Minutes of the Library Committee meetings and to the regular and special reports of his tenure.

To you, members of the current Library Committee, 1978 is an important year for it is the fiftieth anniversary of the Lucien Howe Library of Ophthalmology, the ninetieth anniversary of the Infirmary's Ophthalmic and Aural Collections, and the one hundred and second anniversary of the Superintendent's Reference Collection. To put it another way, for 102 years of its 151 years, the Infirmary has known library service.

One last fact, and a most important one: in its 50 years, the Lucien Howe Library has known only three Librarians: Ada Messenger, August 1928–October 1944; Jeanette Loessl, November 1944–March 1951; Charles Snyder, April 1951–

"*. . . haec olim meminisse juvabit.*"

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(The following abbreviations have been used in this index: HMS — Harvard Medical School, MCEEI — Massachusetts Charitable Eye and Ear Infirmary, MEEI — Massachusetts Eye and Ear Infirmary, MGH — Massachusetts General Hospital.)

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